



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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## GENERAL PERMIT FOR DISCHARGES FROM MARINAS INCLUDING BOAT YARDS AND YACHT BASINS

**DISCHARGE PERMIT NO. 10-MA**

**NPDES PERMIT NO. MDG99**

**Effective Date:** March 1, 2011

**Expiration Date:** February 28, 2016

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*Provides discharge authorization only upon Maryland Department of the Environment notification of registration.*

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## **PART I. APPLICABILITY AND COVERAGE**

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and the provisions of the Clean Water Act (CWA), 33 U.S.C. §1251 et seq. and implementing regulations 40 CFR Parts 122, 123, 124, and 125, the Maryland Department of the Environment, hereinafter referred to as the "Department", hereby authorizes operators located in the State of Maryland, who have submitted a notice of intent (NOI) and received written approval from the Department, to discharge wastewater and storm water runoff associated with industrial activity to waters of the State of Maryland in accordance with the eligibility requirements and other conditions set forth in this permit and consistent with the permittees' NOI on file with the Department.

### **A. Facilities Covered**

1. Federal storm water permit application regulations at 40 CFR Section 122.26(b)(14)(viii) require that certain services incidental to Water Transportation (SIC Industry Group 449) obtain a storm water discharge permit to comply with the CWA. Within this group, SIC Code 4493 applies to establishments, commonly known as marinas, engaged in operating docking and/or storage facilities for boat owners. Facilities with this classification include:
  - a. Marinas
  - b. Boating clubs with marinas
  - c. Sailing clubs with marinas
  - d. Yacht clubs with marinas
  - e. Boatyards that provide storage and incidental repair

If facilities in the above category provide or allow boat maintenance and/or equipment cleaning operations such as fueling, engine or boat maintenance/repair, boat washing, sanding, blasting, welding, or metal fabrication, or pressure washing, then a discharge permit is required and coverage is provided under this permit. (The retail sale of fuel alone at marinas, without any other boat maintenance or equipment cleaning operations, is not grounds for coverage under the Federal/State storm water permit regulations.)

2. Facilities that have their maintenance and/or equipment cleaning operations contained entirely indoors or otherwise not exposed to storm water may not need coverage for their storm water if they certify that they have no exposure (40 CFR 122.26(g)). However, any such facilities with non-storm water discharges of wastewater to waters of the State, including but not limited to wastewater from washing of boats, from maintenance operations or cooling water, require authorization under a permit consistent with the CWA.

### **B. Eligible Discharges**

This permit covers the following discharges:

1. Storm water runoff to surface or groundwater from establishments involved in boat maintenance (including ship rehabilitation, mechanical repairs, painting, maintenance and lubrication);
  2. Wastewater from washing of boats and engines;
  3. Non-contact cooling water and condensate discharges from ice machines, refrigeration units, and other machinery; and
  4. Bilge water collected and treated for discharge to surface or groundwater.
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**C. *Ineligible Discharges***

The following discharges are not eligible for coverage under this general permit:

1. Storm water discharges that have been shown or may reasonably be expected to be contributing to a violation of a water quality standard;
2. Storm water discharges whose National Pollutant Discharge Elimination System (NPDES) permit has been terminated (other than at the request of the permittee) or denied, or those for which the Department requires an individual permit or an alternative general permit;
3. Sanitary wastewater discharges including any sanitary waste comingled with an otherwise authorized discharge; and
4. Wastewater discharges from chemical stripping operations.

**D. *No Permit Required***

No permit is required for establishments where there is no discharge of wastewater to waters of the State and where the operator has certified, in accordance with criteria established by the Department on form MDE/WMA/PER.067 (<http://www.mde.state.md.us>), that there is no potential for exposure of pollutants to storm water being discharged to waters of the State. This exemption is non-transferable, does not require a fee, and is valid for five years or until conditions change.

**E. *Individual Permit or Another General Permit Required***

1. If a permittee is determined to cause an in-stream exceedance of water quality standards, additional actions including an application for an individual permit may be required.
  2. The Department may require any person authorized by this permit to apply for and obtain an individual State or State/NPDES discharge permit or to obtain coverage under another general permit. If an owner or operator fails to submit, in a timely manner, an application for an individual State or State/NPDES discharge permit or a Notice of Intent (NOI) for another general permit as required by the Department under this condition, the applicability of this permit to the owner or operator is automatically terminated at the end of the day specified by the Department for the application or NOI submittal.
  3. Any person authorized by this permit may request to be excluded from coverage under this permit by applying for an individual State or State/NPDES discharge permit or requesting coverage under another general permit. The Department may grant this request by issuing an individual State or a State/NPDES discharge permit or by granting coverage under another general permit, if the reasons cited by the owner or operator are adequate to support the request.
  4. When an individual State or State/NPDES discharge permit is issued to a person for discharges otherwise subject to this permit, the applicability of this permit to the permittee is automatically terminated on the effective date of the individual State or State/NPDES discharge permit.
  5. If there is evidence indicating potential or realized impacts on water quality due to any activity covered by this permit, the owner or operator of the discharging facility may be required to obtain an individual State or a State/NPDES discharge permit or coverage under another general permit.
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6. If a person otherwise covered under this permit is denied coverage under an individual State or a State/NPDES discharge permit, the denial automatically terminates, on the date of the denial, the person's coverage under this general permit, unless otherwise specified by the Department.
7. The Department may process an NOI as an application for an individual permit if site specific conditions do not allow registration of the facility under the general permit without compromising water quality. Such circumstances may occur when a permittee proposes to discharge to impaired waters, with or without an existing Total Daily Maximum Load (TMDL), or for discharges to high quality waters.

#### **F. Termination of Permit**

1. The Department may terminate coverage under this general permit for an existing permittee if the Department finds that:
    - a. The NOI contained false or inaccurate information;
    - b. Conditions or requirements of the discharge permit have been or are about to be violated;
    - c. Substantial deviation from plans, specifications, or requirements has occurred;
    - d. The Department has been refused entry to the premises for the purpose of inspecting to insure compliance with the conditions of the discharge permit;
    - e. A change in conditions exists that requires temporary or permanent reduction or elimination of the permitted discharge;
    - f. Any State or federal water quality stream standard or effluent standard has been or is likely to be violated; or
    - g. Any other good cause exists for terminating coverage under this permit.
  2. If the Department terminates permit coverage as a result of one of the conditions listed in Section F-1 above, the permittee must apply for an individual permit immediately. The permittee must also cease all boat maintenance and washing, and any other activities with the potential to pollute storm water discharges until coverage is granted under an individual permit. If there are periods of discharge between the termination of the general permit and the effective date of the individual permit, the facility operator and owner are accountable for those discharges and any violations of State and federal law are subject to penalty as detailed in PART VII.
  3. Any permittee not requesting termination of permit coverage remains responsible for meeting all permit requirements, including monitoring and reporting. A permittee should request permit termination by submitting a Notice of Termination (NOT) MDE/WMA/PER.005 form (<http://www.mde.state.md.us/>) if:
    - a. All operations at the facility have permanently ceased and there will be no further discharge of wastewater or storm water associated with industrial activity from the facility; or
    - b. A new owner or operator has taken over responsibility for the facility in accordance with PART I – Section H below.
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**G. Authorization**

1. To be authorized to discharge under this general permit, a person is required to submit an NOI in accordance with the requirements of PART III of this permit, pay the required fee, receive notification from the Department of registration and comply with the terms and conditions of this permit. Coverage under this permit is effective on the date that the NOI is accepted by the Department, provided the NOI fee has been paid to the Department in accordance with the terms stipulated in PART III below. An owner, who submits such an NOI, is notified of its acceptance by the Department, complies with the terms and conditions of this permit, and pays the required fee, is authorized to discharge under the terms and conditions of this general permit.
2. If the NOI fee is paid by a check which does not clear for any reason, the person will be given 30 calendar days to make proper payment including any interest and other charges that are due. If payment is not made within this time, coverage under this permit shall be considered void from the outset. The permittee should save the cancelled check, a copy of the completed NOI, and the registration letter from the Department. These documents shall be provided to the Department upon request.

**H. Transfer of Authorization**

1. The authorization under this permit is not transferable to a change in facility location.
  2. The authorization under this permit is not transferable to any person except in accordance with this section.
  3. Authorization to discharge under this permit may be transferred to another person if:
    - a. The current permittee notifies the Department's Industrial Discharge Permits Division in writing of the proposed transfer along with the submittal of form MDE/WMA/PER.079 (<http://www.mde.state.md.us/>);
    - b. A written agreement, indicating the specific date of the proposed transfer of permit coverage and acknowledging the responsibilities of the current and new permittee for compliance with and liability for the terms and conditions of this permit, is submitted to the Department;
    - c. The new permittee either confirms in writing that the type of discharge, number of outfalls, and other information given on the original NOI remain correct or submits a modified NOI;
    - d. The new permittee confirms in writing that either they will follow the existing storm water pollution prevention plan or that they have developed and will implement a new plan within 30 days; and
    - e. Neither the current permittee nor the new permittee receives notification from the Department, within 30 days of receipt of items a through d above, of intent to terminate coverage under this permit.
  4. The Department may continue coverage for the new permittee under this permit or may require the new permittee to apply for and obtain an individual State or State/NPDES discharge permit.
  5. A new owner of a facility is responsible for any permit fees unpaid by the former owner.
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**I. Continuation of an Expired General Permit**

The terms and conditions of this permit and authorized permit registrations are automatically continued and remain fully effective and enforceable upon expiration of this permit until the date(s) specified under a reissued general permit unless the permit or authorization is revoked or terminated by the Department.

**J. Change in Location**

Registration under this permit is specific to a geographic location. If an operation moves, the permittee must submit a Notice of Termination (NOT) MDE/WMA/PER.005 form (<http://www.mde.state.md.us/>) as stated in Section F, above. They must also apply for coverage at the new location by submitting a new NOI and SWPPP.

**K. Responsibility of Permittee with Regard to Facility Users**

1. It is the responsibility of the permittee to ensure all employees and any user of the permitted facility (e.g., contractors, employees, slip owner/renters, day users, etc) has knowledge of the permit prohibitions and other relevant requirements of this permit. This shall be accomplished by either:
  - a. posting in a conspicuous location signage identifying prohibited discharges, the Department's Emergency Pollution Hotline (1-866-633-4686 (866-MDE GO TO)), and location of the three (3) of the nearest sanitary pump-out stations or contractors providing pump-out services (appropriate language for these signs can be found at the Department's website);
  - b. providing educational materials; and/or,
  - c. including conditions within contracts for slip renters, contractors, etc.
2. If a user's activity results in a violation of the terms of the permit and the permittee has performed its obligations with regard to the conditions in Section K.1, above, then the Department may directly address the violation with the responsible user.

**PART II. DEFINITIONS**

- A. **"Antifouling paint"** shall be defined per COMAR 15.21.01 – "means a compound, coating, paint, or treatment applied or used for the purpose of controlling freshwater or marine fouling organisms on vessels".
  - B. **"Ballast water"** means water and suspended matter taken on board a vessel to control or maintain trim, draft, stability, or stresses of the vessel without regard to the manner in which it is carried. Ballast water is not regulated under this permit.
  - C. **"Best management practices (BMP)"** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of this State. BMP also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.
  - D. **"Boat"** includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the waters of the United States. This includes barges and tugs. For the purpose of this permit, vessel and boat may be used synonymously.
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- E. **"Boat Bottom"** as identified in this permit means the area of the vessel submerged when the vessel is afloat.
- F. **"Bypass"** means the intentional diversion of wastes from any portion of a treatment facility.
- G. **"CFR"** means Code of Federal Regulations.
- H. **"COMAR"** means Code of Maryland Regulations.
- I. **"Daily maximum"** means the highest measurement recorded for that given parameter.
- J. **"Department"** means the Maryland Department of the Environment. Unless stated otherwise, all submissions to the Department shall be directed to the attention of the Wastewater Permits Program.
- K. **"Discharge"** means:
1. The addition, introduction, leaking, spilling, or emitting of any pollutant to waters of this State; or
  2. The placing of a pollutant in a location where the pollutant is likely to pollute.
- L. **"Estimated flow"** means a calculated volume or discharge rate that is based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.
- M. **"Federal Clean Water Act"** means the Federal Water Pollution Control Act Amendments of 1972, its amendments and all rules and regulation adopted there under.
- N. **"General permit"** means a discharge permit issued for a class of dischargers.
- O. **"Grab sample"** means an individual sample collected over a period of time not exceeding 15 minutes. Grab samples collected for pH and total residual chlorine shall be analyzed within 15 minutes of time of sample collection.
- P. **"Groundwater"** means underground water in a zone of saturation.
- Q. **"Impaired water"** means water whose quality does not meet its designated use(s). For purposes of this permit 'impaired' refers to threatened and impaired waters:
1. For which TMDLs have been established,
  2. For which existing controls such as permits are expected to resolve the impairment, or
  3. For which a TMDL is required.
- Impaired waters compilations are also sometimes referred to as 303(d) lists, and are included in [Maryland's most current List of Impaired Surface Waters \[as Category 4 or 5\]](http://staging.mde.state.md.us/programs/Water/TMDL/Pages/Programs/WaterPrograms/tmdl/index.aspx) (<http://staging.mde.state.md.us/programs/Water/TMDL/Pages/Programs/WaterPrograms/tmdl/index.aspx>).
- R. **"Impervious area"** means any surface that does not allow storm water to infiltrate into the ground. Consistent with the Maryland Critical Area Commission, also means human-made surfaces that are not vegetated will be considered impervious. Impervious surfaces include roofs, buildings, paved streets and parking areas and any concrete, asphalt, compacted dirt or compacted gravel surface.
- S. **"Includes" or "including"** means includes or including by way of illustration and not by way of limitation.
- T. **"Marina"** means a facility for the mooring, docking, or storing of vessels on both tidal and non-tidal waters, including a commercial, noncommercial or community facility.
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- U. **"Moored"** means a vessel fastened to a fixed object such as a pier, quay or the seabed, or to a floating object such as an anchor buoy. For reference of this permit only, "moored" shall pertain to boats within the limits of the marina and/or fixed or floating objects owned by the marina.
  - V. **"NPDES permit"** means a National Pollutant Discharge Elimination System permit issued under the Federal Clean Water Act.
  - W. **"NOI"** means Notice of Intent to be covered by this permit (see PART III of this permit).
  - X. **"Oil and Grease"** refers to the use of and results yielded from EPA Method 1664"(or any EPA approved revisions of this analytical test method approved for use with Federal Clean Water Act monitoring programs).
  - Y. **"Operator"** means that person or those persons with responsibility for the management and performance of each facility.
  - Z. **"Owner"** means a person who has a legal interest in a marina, in the property on which a marina is located, or the owner's agent.
  - AA. **"Permittee"** means the person holding a permit issued by the Department and authorized to discharge under the provisions of this general permit.
  - BB. **"Persistent Foam"** means foam that does not dissipate within one half-hour of point of discharge and: forms objectionable deposits on the receiving water; forms floating masses producing a nuisance; produces objectionable color or odor; or interferes with a designated use of the water body. It does not mean foaming of the receiving water body caused by natural conditions.
  - CC. **"Person"** means an individual, receiver, trustee, guardian, personal representative, fiduciary, or representative of any kind, and any partnership, firm, association, corporation, or other entity. Person includes the federal government, this State, any county, Municipal Corporation or other political subdivision of this State or any of their units.
  - DD. **"Sewage"** means water-carried human, domestic and other wastes and includes all human and animal excreta from residences, buildings, industrial establishments, or other places.
  - EE. **"Significant modification"** means an expansion (property or slip capacity) of 20% or more, or other change that may reasonably be expected to affect the quantity of flow treated or the quality of the effluent discharged to the waters of the State.
  - FF. **"State discharge permit"** means the discharge permit issued under the Environment Article, Title 9, Subtitle 3, Annotated Code of Maryland.
  - GG. **"Storm water"** means that portion of precipitation, including snow melt runoff, that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, and the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.
  - HH. **"Surface waters"** means all waters of this State that are not groundwater.
  - II. **"Territorial boundaries"** means both land and waters of the State.
  - JJ. **"Total Maximum Daily Load (TMDL)"** means a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.
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**KK. "Upset"** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

**LL. "Wash water"** as identified in this permit means wastewater from washing boats. This includes pressure washing using high pressure water jet(s) to remove marine growth, dirt and paint, or manually scrubbing and rinsing with low pressure water.

**MM. "Wastewater"** means any:

1. Liquid waste substance derived from industrial, commercial, municipal, residential, agricultural, recreational, or other operations or establishments; and
2. Other liquid waste substance containing liquid, gaseous or solid matter and having characteristics that will pollute any waters of the State.

**NN. "Waters of the State"** includes:

1. Both surface and underground waters within the boundaries of this State subject to its jurisdiction, including that part of the Atlantic Ocean within the boundaries of this State, the Chesapeake Bay and its tributaries, and all ponds, lakes, rivers, streams, tidal and nontidal wetlands, public ditches, tax ditches, and public drainage systems within this State, other than those designed and used to collect, convey, or dispose of sanitary sewage; and
2. The flood plain of free-flowing waters determined by the Department of Natural Resources on the basis of the 100-year flood frequency.

**OO. "Water Quality Standard"** means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in [COMAR 26.08.02](#) (<http://www.dsd.state.md.us/comar/>).

### **PART III. CONDITIONS of INITIAL SUBMISSION**

#### **A. Initial Submission Requirements**

##### **1. Notice of Intent**

a. Applicants shall complete all required information on this permit's corresponding NOI Form MDE-WMA-PER008 (<http://www.mde.state.md.us>), including: permittee name, address, and telephone number; facility location including address and latitude and longitude; any preexisting NPDES permit number; receiving water body(s) for each outfall/discharge, and discharge type and flow (expressed as gallons per day) for each outfall. Detailed instructions on how to complete the NOI are located on the back of the form.

b. If a person operates multiple facilities, an NOI is required for each noncontiguous site.

##### **2. Discharge Permit Fee**

a. Persons who intend to obtain coverage under this general permit shall submit to the Department a one time fee (for the life of this permit) according the number of slips at their

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property, per [COMAR 26.08.04.09-1](#). Facilities owned and operated by local and state governments are not required to pay a fee.

<u>Number of Slips</u>	<u>Permit Fee</u>
200 or more	\$500
100 or more but fewer than 200	\$400
50 or more but fewer than 100	\$300
10 or more but fewer than 50	\$200
Fewer than 10	\$100

- b. All fees shall be made out to the Maryland Department of the Environment and sent along with the completed NOI to:

Maryland Department of the Environment  
P.O. Box 2057  
Baltimore, MD 21203-2057

3. Storm Water Pollution Prevention Plan (SWPPP)

- a. The Storm Water Pollution Prevention Plan is a tool used to evaluate a facility and identify ways to minimize the exposure of storm water entering and leaving the property to any potential sources of pollutants and is described in more detail in PART V of the permit. It includes a written assessment of potential sources of pollutants in storm water runoff and control measures that will be implemented at a facility to minimize the discharge of these pollutants in runoff from the site. These control measures include best management practices (BMP), maintenance plans, inspections, employee training and reporting.
- b. The SWPPP must be submitted with the NOI for permit coverage. If the SWPPP was prepared under a previous NPDES permit, it must be reviewed and updated to implement all provisions of this permit prior to submittal with NOI.
- c. A digital (electronic) copy must be submitted to the Department and a hard copy must be available onsite.
- d. The permittee shall provide the Department an electronic copy of the SWPPP by either:
- i.) Mailing a Portable Document Format (.PDF) file on electronic media (CD, DVD, USB drive, or other approved media) to:  
Maryland Department of the Environment  
Wastewater Permits Program  
1800 Washington Blvd, Ste 455  
Baltimore, MD 21230
  - ii.) Emailing the .PDF file to [SWPPP@mde.state.md.us](mailto:SWPPP@mde.state.md.us) (not to exceed 8 MB file size), include "10-MA", your facility name and physical address in the subject line;
  - iii.) Providing a link on a publicly available company website; or
  - iv.) Other electronic means as approved by the Department.
- e. The SWPPP submitted shall not contain confidential information, and shall be suitable for review by the public.
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**B. Deadlines for Notification****1. New Discharges**

At least 60 days prior to the commencement of any new discharge covered under this general permit, a person shall request coverage by submitting a NOI, SWPPP and fee in accordance with the requirements of this permit.

**2. Existing Facilities**

Any existing facilities subject to this permit shall submit a NOI, SWPPP and fee within 90 days of issuance of this permit to be considered for authorization under this permit.

**3. Renewals of General Permit 02-MA**

Within 90 days after the effective date of this permit, any permittee currently registered under General Permit 02-MA shall submit to the Department a new NOI, storm water pollution prevention plan, and fee in order to obtain coverage under this permit. Failure to provide the required documents will result in automatic termination of coverage under General Permit 02MA and the discharger will be subject to enforcement by the Department for discharging without a permit unless the permittee previously provided notice that this discharge has been terminated in accordance with the requirements of the permit. Permittees who submit timely notification for continued permit coverage shall operate under the administratively extended permit 02MA until receiving notification from the Department of coverage (or denial of coverage) under the new permit.

**4. All Discharges**

The Department may bring an enforcement action for failure to submit a NOI in a timely manner, or for any unauthorized discharges that occurred prior to obtaining coverage under this permit.

**C. Required Signatures****1. Certification.** Any person signing a NOI shall make the following certification as part of the NOI.

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

**2. Signatories.** All permit applications shall be signed as follows:

**a.** For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

**i.)** A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

**ii.)** The manager of one or more properties belonging to the owner, provided the manager is authorized to make management decisions which govern the operation of the regulated property including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and

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where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- c. For a municipal, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - i.) The chief executive officer of the agency; or
  - ii.) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of the EPA).

### 3. Report Submission

- a. All reports required by permits, and other information requested by the Department shall be signed by a person described in PART III C.2 or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i.) The authorization is made in writing by a person described in PART III C.2;
  - ii.) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of marina manager, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company; and
  - iii.) The written authorization is maintained with the monitoring reports and made available to the Department upon request.
- b. If an authorization under this subsection is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of PART III C.3(a) must be submitted to the Department prior to or together with any reports, information or applications to be signed by an authorized representative.

### D. **Failure to Notify**

Persons who engage in an activity covered under this permit, who fail to notify the Department of their intent to be covered under this permit within ninety days of permit issuance, and who discharge to waters of the State without an individual State or State/NPDES discharge permit, are in violation of the Federal Act and of the Environment Article, Annotated Code of Maryland, and may be subject to penalties.

### E. **Additional Notification**

Any facility registered under this permit that discharges into a municipal storm sewerage system shall make its plan available to the operator of that system if it is regulated by an NPDES permit.

Local storm sewerage systems under NPDES permits are listed at

[http://www.mde.maryland.gov/programs/water/stormwatermanagementprogram/pages/programs/waterprograms/sedimentandstormwater/storm\\_gen\\_permit.aspx](http://www.mde.maryland.gov/programs/water/stormwatermanagementprogram/pages/programs/waterprograms/sedimentandstormwater/storm_gen_permit.aspx).

Contacts for large systems are available at [http://www.mde.state.md.us/assets/document/sedimentstormwater/NPDES\\_Phase\\_1\\_Contacts.pdf](http://www.mde.state.md.us/assets/document/sedimentstormwater/NPDES_Phase_1_Contacts.pdf)

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**F. *Change in Discharge***

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit at a level in excess of that authorized shall constitute a violation of the terms and conditions of this permit. The permittee shall report any anticipated facility expansions, production increases, or process modifications which will result in new, different or an increased discharge of pollutants by submitting a new application at least 180 days prior to the commencement of the changed discharge except that if the change only affects a listed pollutant and will not violate the effluent limitations specified in this permit, by providing written notice to the Department. Following such notice, the permit may be modified by the Department to include new effluent limitations on those pollutants.

1. The permittee shall submit Form WMA/NOICHANGE (<http://www.mde.state.md.us>) and revised SWPPP for any significant modification of the facility. Based on its evaluation of the form and revised SWPPP, the Department may:
  - a. Continue to authorize the discharge under this general permit; or
  - b. Require the permittee to apply for an individual State or State/NPDES discharge permit.
2. If any anticipated facility expansions, wastewater treatment modifications or any other change will not result in a violation of the effluent limitations specified in this permit, the permittee shall report the change to the Department in writing.

**G. *Permit Expiration and Renewal***

The terms and conditions of this permit and authorized permit registrations are automatically continued and remain fully effective and enforceable upon expiration of this permit until the date(s) specified under a reissued general permit unless the permit or authorization is revoked or terminated by the Department.

**PART IV. NON-STORM WATER DISCHARGES****A. *Prohibited Discharges***

The following discharges are prohibited under this permit:

1. Washing of boat bottoms painted with soft ablative paints, or paints which create a visible plume shall not be performed in water. Removal of any paints while vessel is in water is prohibited.
2. Discharges that contain visible oil sheen, persistent foam or floating solids.

**B. *Effluent Limitations and Monitoring Requirements*****1. *Boat Bottom Wash Water*****a. *Conditions.***

- i.) Washing of boat bottoms painted with antifoulants must be performed in a dedicated area.
  - ii.) Beginning no later than September 1, 2012, all wastewater generated from boat bottom washing activities shall be captured and directed to one or more locations for treatment. The quality of wastewater shall be monitored in accordance with the table below. Compliance dates for wastewater quality limits shall be met in accordance with Section B.1.b *Limits*, below. The permittee shall indicate on the first monitoring report submitted
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to the Department the locations of the monitoring points and where the effluent discharges to waters of the State.

PARAMETER	QUALITY OR CONCENTRATION		FREQUENCY	SAMPLE TYPE
	MAXIMUM	UNITS		
Total Suspended Solids (TSS)	50	mg/L	4/year	Grab
Oil & Grease	15	mg/L	4/year	Grab
Copper	0.06	mg/L	2/season	Grab
Zinc	0.81	mg/L	2/season	Grab
Lead	0.08	mg/L	2/season	Grab
Flow	Report	gpd	Monthly	Estimated

*iii.)* Sampling Frequency. Metals shall be sampled twice during the main washing season (September - December). Suspended solids and oil & grease shall be sampled twice during the main washing season and twice during the spring/summer season for a total of four times a year.

*iv.)* Flow shall be estimated and recorded on a monthly basis.

*v.)* All solids (i.e., paint chips, filter fabrics, barnacles, etc.) removed from the wastewater shall be disposed of properly.

**b. Limits.**

*i.)* Monitoring is required beginning September 1, 2012. The numeric **limits** for total suspended solids (TSS) and oil & grease (O&G) take effect beginning March 1, 2013. Numeric **limits** for metals take effect March 1, 2015. Prior to the effective date of the limits, all wastewater shall continue to be treated using reasonable measures, such as straw dam filters, geotextiles, settling basins, or sand filters to remove visible solids.

*ii.)* If wash water samples meet standards for at least three consecutive monitoring periods, the monitoring frequency may be reduced to annual for metals (during peak washing periods September – December). Permittees shall submit to the Department in writing a request for this decrease. Reduction in sampling will be permitted only upon written Department approval.

**c. Compliance Plan**

*i.)* Facilities that plan to redirect wash water in order to eliminate a surface water discharge should submit to the Department by February 28, 2013 a compliance plan to cease discharging by February 28, 2015. The plan must address the collection of all boat bottom wash water in a closed system, to one of the following:

1. A closed loop recycling system with proper disposal of solid wastes;
2. Off site disposal by a licensed operator; or
3. Connection to the sanitary sewer with permission from local utility's pre-treatment or industrial discharge program.

*ii.)* Upon receipt of the compliance plan, the Department will notify the permittee that metals monitoring is waived until February 28, 2015. The permittee shall update the Department of the project status in writing every six months to maintain the monitoring waiver. Note that all permit requirements for suspended solids continue to remain in effect at all times.

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- iii.)* Upon completion of the system, the permittee shall maintain at the facility photos of the system which illustrate how it works and what it is connected to (if applicable); an as-built schematic or design drawing; and a copy of the agreement with the licensed hauler or local utility (for offsite disposal or discharge to sanitary sewer). These materials shall be updated as necessary and available onsite for the life of the permit.

## 2. Bilge Water

- a. This permit does not require the collection of bilge water. However, if bilge water is collected from a vessel in order to prevent the discharge from entering into waters of the State, it must be treated prior to discharge into ground or surface waters of the State. Such discharge shall be sampled at the discharge point in accordance with the following chart and shall be reported as per PART VI of this permit. (Discharges of oil from bilge water directly from a vessel is regulated separately under 33 CFR Subchapter O and 40 CFR 110).

PARAMETER	QUALITY OR CONCENTRATION			FREQUENCY OF ANALYSIS	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	UNITS		
Oil & Grease	10	15	mg/L	1/Month	Grab
Flow		Report	gpd	1/Month	Estimated

- b. Bilge water discharges shall not cause any visible sheen in waters of the State.
- c. Bilge waters shall not be discharged to waters of the State if solvents, detergents, emulsifying agents or dispersants have been added to the bilge (this includes soaps).
- d. Wastewater from cleaning of engines or oily parts may be discharged in accordance with this PART.

## 3. Cooling Water

The discharge of non-contact cooling water is authorized if it does not contain any additives. Any discharge which contains additives may only be authorized by a separate individual NPDES permit.

## 4. Condensate

The discharge of condensate is authorized but has no limitations or monitoring requirements unless it comes in contact with contaminants associated with site activities.

## C. Management Requirements

### 1. Invasives

Discharges may not contain any exotic and harmful species (e.g., zebra mussels). Any collected exotic or harmful species must be reported and handled per Maryland's Department of Natural Resources Invasive Species Resource Center (<http://www.dnr.state.md.us/invasives/>).

### 2. Erosion

All necessary measures shall be in place to prevent erosion damage during the discharge of wastewater. Any gulying greater than six inches in depth is considered excessive erosion. If the discharge is onto normally dry land or a dry drainage channel, these preventive measures may include, but are not limited to, discharge via a diffuser, discharge into riprap, discharge into a splash barrier, and flow rate controls. If the discharge is directly into flowing or standing

water, preventive measures may include flow rate control and locating the point of discharge in the receiving water at a sufficient depth to avoid bottom scour.

### **3. Divers**

Require slip holders to use only contractors which abide by the best management practices of the Maryland Department of the Natural Resources' *Clean Marina Initiative*. Require divers to certify in writing they perform maintenance of boats under these best management practices (Resources for Professional Divers - <http://www.dnr.state.md.us/boating/cleanmarina/> ).

### **4. Dredge / Fill / Construction**

All dredging, filling or construction activities require a tidal wetlands license and permittee must contact the Department's Tidal Wetlands program (phone: 410-537-3835) prior to performing any of these activities.

## **PART V. STORM WATER MANAGEMENT**

Storm water discharges can cause significant impact on the receiving water quality. Some of the common pollutants potentially found in marina storm water run-off include oils, grease, fuel, solvents, paint chips, copper and other heavy metals. Prior to the submission of an NOI, a permittee who seeks to obtain coverage under this general permit shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for the facility. The primary objective of the plan shall be to identify ongoing or potential sources of pollution to storm water and to optimize Best Management Practices (BMP) in order to minimize pollutants in storm water runoff. Coverage under this permit is conditioned upon implementation of the SWPPP and respective BMP.

### **A. Storm Water Pollution Prevention Plan - General**

The permittee shall implement and maintain a storm water pollution prevention plan (SWPPP) for the facility covered by this permit. The SWPPP shall be prepared in accordance with sound engineering practices and identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with eligible activities on the facility property. It shall prescribe practices to reduce and/or eliminate pollutants in storm water discharges associated with activities at the facility. The Department provides guidance and hyperlinks to sources that will aid in the creation/revision of an SWPPP (see <http://www.mde.state.md.us>). The SWPPP must include a year-round contact.

#### **1. Administrative Requirements**

- a.** The plan shall be signed in accordance with PART III - Section C.2 of this permit, and must be retained on site in accordance with PART VI – Section G of this permit. For new facilities, the plan shall be completed and implemented no later than the date operations begin. For existing facilities or those renewing permit coverage, the permittee shall develop and implement a plan upon the effective date of coverage under this general permit.
  - b.** The Department may notify the permittee, at any time, that the SWPPP does not meet one or more of the minimum requirements of this Part. After such notification from the Department, the permittee shall make changes to the plan to meet the objections of the Department and shall submit to the Department a written certification along with the revised plan that the requested changes have been made and implemented. Unless otherwise provided by the Department, the permittee shall have 90 days after such notification to make the necessary changes.
  - c.** The permittee shall keep the SWPPP current, and include the most recent date of the SWPPP on the front page of the plan. The permittee shall amend the plan whenever there is a significant modification to the facility and its potential for discharge of pollutants to the waters of the State. The permittee shall also amend the SWPPP if it proves to be ineffective
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in achieving the general objectives of controlling pollutants in storm water discharges associated with their industrial activity. If there is a significant modification to the facility as identified in PART III - Section F, the permittee shall confirm the continued applicability of the existing plan or make needed changes, and submit the confirmation or amendment to the Department.

- d. Plan retention for inactive sites. If during the term of this permit, a site becomes inactive, the permittee must contact the Department immediately and provide, in writing, the date of inactivity, the facility contact phone number and the location of the SWPPP. The SWPPP must be made available during normal working hours. **Note inactivity does not refer to seasonal closures.**
- e. Permittees may be subject to additional requirements and regulations dictated by the Department's Oil Control Division and Emergency Planning and Community Right-to-Know Act (EPCRA) (40 CFR 116). Any requirements listed in this permit which control grease, oil or fuel are to address potential pollutants not governed directly by Oil Pollution Prevention (40 CFR 112), as the handling and storage of fuel and other petroleum products has a potential to cause negative impacts to ground and surface waters of the State.

## 2. Assessment Procedures

### a. *Routine Facility Inspection*

At least once per quarter qualified site personnel shall conduct a site assessment which will review the effectiveness of the SWPPP. This inspection must be documented with a checklist or other summary signed in accordance with PART III – Section C.2 of this permit, dated and held in a logbook. The documentation shall include a certification that the site is in compliance with the SWPPP and this permit, or the deficiencies and necessary follow up actions shall be recorded. Any corrective actions which arise from the inspection must be completed by no later than the next inspection.

### b. *Quarterly Visual Inspections*

The Department requires visual monitoring for use as an indicator to determine the effectiveness of the control measures utilized in the facility's storm water pollution prevention plan. Once each quarter, the permittee shall collect a storm water sample from each outfall (except as noted in *Adverse Weather Conditions* below) and assess the sample visually. Samples may be taken during any precipitation event where the amount is greater than 1/2-inch and must be sampled within the first 30 minutes of the storm event. These samples are not required to be collected consistent with 40 CFR 136 procedures but should be collected in such a manner that the samples are representative of the storm water discharge. If there are no direct means of conveyance (i.e., pipe) for a collection sample, a sample representative of the site conditions must be collected at the discharge point closest to the waters of the State (i.e., boat ramp, edge of land to dock, etc.). All inspections must be performed during daylight hours.

The Quarterly Visual Monitoring Form found in Appendix A of this permit shall be completed for each sample, and shall be kept onsite and available for inspection and review by the Department at anytime and in accordance to PART VIII - Section I below.

*Adverse Weather Conditions:* When adverse weather conditions prevent the collection of samples during the quarter, you must take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter must be included with your SWPPP records.

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**B. Storm Water Pollution Prevention Plan - Contents****1. Site Plans and Description**

All permittees must maintain a site map which identifies discharge points, any water body where discharge is conveyed, hazardous material and main equipment/building locations. These include hazardous material storage, direction of flow for storm and permitted wastewater discharges, collection of sewage and fueling locations.

**2. Pollution Prevention Team**

All permittees must maintain an active pollution prevention team. This team is responsible for the development and implementation of the SWPPP and employee training. The SWPPP must identify the responsibilities of each team member.

**3. Employee Training**

Employee training programs shall inform personnel, responsible for implementing activities identified in the SWPPP or otherwise responsible for storm water management, of the components and goals of the SWPPP. The SWPPP shall identify how often training will take place, but in all cases training must be held at least twice per calendar year. As part of the employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent and paint management, disposal of spent abrasives (i.e., sand and soda blasting materials, etc.), disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, used battery management, and sacrificial anode disposal.

**4. Description of Potential Sources**

The plan shall provide a description of potential sources that may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather to waters of the State. Each plan shall identify activities and significant materials that may potentially be significant pollutant sources.

**5. Inventory of Exposed Materials**

The plan must contain an inventory of the types of materials handled at the site that potentially may be exposed to precipitation. Such inventory shall include a narrative description of significant materials that have been handled, treated, stored, or disposed in a manner to allow exposure to storm water at the facility from three years prior to the date of coverage under this permit to the present; method and location of onsite storage or disposal; materials management practices employed to minimize contact of materials with storm water runoff at the facility from three years prior to the date of coverage under this permit to the present; the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of any treatment the storm water receives.

**6. Spills and Leaks**

A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at areas that are exposed to precipitation or that otherwise drain to a storm water conveyance at the facility since three years prior to the date of coverage under this permit. Such list shall be updated as appropriate during the term of the permit.

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7. Best Management Practices, Measures and Controls

Each facility covered by this permit shall develop a description of storm water management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility. The following are practices, measures and controls which must be addressed in the plan:

- a. *Good Housekeeping.* Permittees must keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals. The plan must include a schedule for routine yard maintenance and cleanup. Scrap metal, wood, plastic, miscellaneous trash, paper, glass, industrial scrap, insulation, shrink-wrap, etc., must be routinely removed from the general yard area.
- b. *Maintenance.* Permittees must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters. Permittees must maintain all control measures that are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained), and all needed replacement and repair completed as expeditiously as practicable. When not in use prevent any storm water from entering the treatment system for boat bottom washing. Identify in the plan measures employed to meet the requirements identified in PART IV - Section C, *Maintenance Activities*.
- c. *Maintenance Activities.* Maintenance activities must be performed in a manner which controls the exposure and possible contamination of storm water. If storm water becomes contaminated due to comingling with maintenance activities and has the potential for discharging pollutants to waters of the State, it is the responsibility of the permittee to identify the appropriate measures to treat the contaminated water. Do not blow off or rinse off area as this can lead to contamination. Activity work areas must be secured each evening as to protect any exposure of pollutants to storm water. The facility must contain maintenance activities to prevent abrasives, paint chips and any overspray from reaching the receiving water or the storm sewer system.

i.) Surface Preparation

- 1. Chemical Stripping or burning shall be conducted over a suitable ground cover (i.e., rubber mat) or sealed impervious surface (i.e., epoxy lined concrete or asphalt).
- 2. Scraping of vessels in preparation for painting or other repair work shall be conducted over a suitable ground cover (i.e., filter cloth, tarp).
- 3. Soda / Sand Blasting, Sanding and / or Grinding
  - a.) Permanent structures or temporary protective measures such as drop cloths and shrouding shall be secured around the activity to capture airborne particles. A suitable ground cover (i.e., tarp, rubber mat) must be placed under activity area in order to collect any debris.
  - b.) If sanding is performed using a "dustless" vacuum sanding system, sanding is not subject to the enclosure requirements **unless** weather events render the vacuum ineffective. Any debris must be collected.

ii.) Tributyl Tin (TBT)

- 1. Antifouling paint containing TBT shall be removed only in protected areas.
- 2. Old anti-fouling coatings suspected to contain TBT are not to be burnt off.

iii.) Painting

- 1. All paint mixing, solvent transfer, and equipment clean up operations must be contained, and shall not enter floor or storm drains or the environment. Painting of bottoms, including "touch-up", must be performed in an area where drips are controlled, prevented from spreading and will have no exposure to storm water.
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2. Sprayed paint shall only be performed in an enclosed building or spray booth. A spray booth is a permanent shed or temporary enclosure that is erected around the boat during the activity and has a solid floor (i.e., tarp, concrete, etc).
3. Spills must be cleaned immediately with absorbent material, paper and/or rags.
4. Paint brushes, rollers, used paint and other equipment must be disposed of in accordance with Section B.7.c.iv) *Waste disposal*, below, as applicable. Any cleaning of used brushes or rollers shall not discharge to surface waters.

**iv.) Waste disposal**

Any solid waste generated from boat maintenance activities, including but not limited to batteries, paints and oils, shall be collected for disposal at an appropriate facility, in accordance with RCRA, MDE's Land Management Administration's regulations or any local environmental ordinances and/or waste disposal authorities. Containment of any solid waste shall be adequate to prevent any potential discharge from entering adjacent surface waters.

**v.) Oil transfer**

Any co-mingling of wash or storm water with petroleum products is considered an industrial process wastewater and is subject to effluent conditions identified in PART IV-Section A and B.2 and is subject to effluent limits identified in PART IV-Section B.2.b.

**vi.) Sacrificial Anodes and Mechanical Repair**

All anodes shall be properly disposed or recycled. All metal (i.e., running gear, mechanical parts, anodes, etc.) removed while vessel is in water shall be taken ashore.

- d. *Material Storage Areas.*** Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains to eliminate the contamination of precipitation or surface runoff from the storage areas. Identify which materials are stored indoors, and ensure containment or enclosure for those stored outdoors. If abrasive blasting is performed, determine the appropriate storage and disposal of spent abrasive materials generated at the facility. Implement an inventory control plan to limit the presence of potentially hazardous materials onsite. Solid chemical products, chemical solutions, paints, oils, solvents, acids, caustic solutions and waste materials, **including used batteries and lead and copper waste, shall be stored under cover on an impervious surface.** Cracked batteries must be stored in a covered non-leaking secondary containment (a building that is watertight and does not drain to waters of the State provides secondary containment).
- e. *Material Handling Areas.*** The plan must describe measures that prevent or minimize contamination of storm water runoff from material handling areas (i.e., fueling, paint and solvent mixing, etc.).
- f. *Engine Maintenance and Repair Areas.*** Ensure there is no contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Drain all parts of fluid prior to proper disposal. Dispose filters in accordance with local requirements. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area. If a vessel is moved prior to pumping out the bilge, absorbent pads shall be used to prevent the accidental discharge of oils to water of the State.
- g. *Drydock Activities.*** Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from
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accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

- h. *Marine railway.* All solids and debris must be removed prior to being submerged as to prevent materials from being washed into waters.
- i. *Erosion and Sediment Controls.* Permittees must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants.
- j. *Spill Prevention and Response Procedures.* Permittees must minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills. In addition to any requirements of [RCRA](#) (42 U.S.C. §6901), the Departments [Division of Land Management Oil Control Program](#) (<http://www.mde.maryland.gov>), NFPA 30 Flammable and Combustible Liquids Code or the Spill Prevention, Control and Countermeasure (SPCC) Plan (as a requirement of [40 CFR § 112](#)), permittees shall identify in their SWPPP containers that are susceptible to spillage or leakage (i.e., use oil). Verify on a quarterly basis that all containment structures have no leaks/cracks and discharge is properly sealed. Check that plugs are properly affixed and any valve is in working condition and not leaking. The Department shall be notified of any oil spill, regardless of size, source or the cause of the discharge or spill, via the Maryland Department of the Environment's Emergency Spill Response number at (866) 633-4686. This number is monitored 24-hours a day.

**C. Additional Requirements for Facilities Subject To SARA Title III, Section 313 Requirements**

Facilities which are subject to SARA Title III, [Section 313](#) (42 U.S.C. 11023) reporting requirements shall, in addition to the requirements of this Part, provide additional narrative on the preventive measures used to eliminate the exposure of these chemicals to storm water run-on or run-off. To identify if a facility is subject to this requirement, visit the Maryland Department of the Environment's [Community Right-to-Know website](#) (<http://www.mde.state.md.us>) for more information. A list of the Section 313 chemicals can be found at the [EPA's LIST OF LISTS Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act \(EPCRA\) and Section 112\(r\) of the Clean Air Act](#) (<http://www.epa.gov>). Additionally, SARA Title III, Section 313 water priority chemicals are often identified on Material Data Safety Sheets (MSDS) as such.

## **PART VI. MONITORING AND REPORTING**

### **A. Representative Sampling**

1. The topography of the marina, dedicated wash area, and procedures will determine the best sampling location. Modification of the dedicated wash area may be necessary to collect reflective samples. Required samples and measurements shall be taken at such times as to be representative of the quantity and quality of the discharges during the specified monitoring periods. Where effluent authorized by this general permit (PART IV) mingles with other wastewaters, the time and place of sampling shall be chosen to uniquely represent the effluent authorized by this permit.
  2. The permittee shall estimate flows and submit the following information with their discharge monitoring report each calendar year:
    - a. a description of the methodology used to estimate flow at each outfall where flow measurement equipment is not present;
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- b. documentation appropriate to the methodology utilized which provides information necessary to support the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations should also be provided; and
- c. a description of the factors (e.g. batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.

**B. *Sampling and Analytical Methods***

- 1. The sampling and analytical methods used shall conform to procedures for the analysis of pollutants as identified in [40 CFR 136](#) - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" unless otherwise specified.
- 2. Permittees shall utilize their site map, as required in PART V - Section A, and determine where the runoff from the eligible discharge activity drainage areas discharges from the permitted facility.
- 3. Required samples and measurements shall be taken at such times as to be representative of the quantity and quality of the discharges during the specified monitoring periods.
- 4. The Department provides general information on effluent testing on their website (<http://www.mde.state.md.us>).

**C. *Data Recording Requirements***

For each measurement or sample taken to satisfy the requirements of this permit, the permittee shall record the following information:

- 1. The exact place, date, and time of sampling or measurement;
- 2. The person(s) who performed the sampling or measurement;
- 3. The dates and times the analyses were performed;
- 4. The person(s) who performed the analyses;
- 5. The analytical techniques or methods used; and
- 6. The results of all required analyses.

**D. *Monitoring Equipment Maintenance***

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation to insure accuracy of measurements.

**E. *Additional Monitoring by Permittee***

If the permittee monitors any pollutant more frequently than required by this permit, the permittee shall use approved analytical methods as specified in Section B above, and shall report the results of such monitoring, including the increased frequency, in the calculation and reporting of the values as required in Section F, below.

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**F. Reporting Monitoring Results**

1. All monitoring results obtained by the permittee during each calendar year shall be summarized on a Discharge Monitoring Report form EPA No. 3320-1. Facilities operating more than fifteen weeks each year shall submit results twice yearly, postmarked no later than the 28<sup>th</sup> day of the month following the end of each monitoring mid-calendar year (January 28<sup>th</sup> and July 28<sup>th</sup>). All others shall submit results annually, postmarked on or before October 15<sup>th</sup>. Results shall be submitted to the Department at the address below:

Maryland Department of the Environment  
Water Management Administration  
Compliance Program, Suite 425  
1800 Washington Blvd.  
Baltimore, MD 21230

2. All reports required by permits, and other information requested by the Department shall be signed by a person described in PART III – Section C.2 or by a duly authorized representative of that person as described in PART III – Section C.3.

**G. Records Retention**

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and original recordings from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. This period shall be extended automatically during the course of litigation, or when requested by the Department.

**H. Noncompliance with Discharge Limits**

1. If, for any reason, the permittee does not comply with or will be unable to comply with the effluent limitations specified in this permit, the permittee shall notify, within 24 hours of discovery of the noncompliance, the:

Maryland Department of the Environment  
Water Management Administration  
Compliance Program, Suite 425  
1800 Washington Blvd.  
Baltimore, MD 21230  
Phone: (410) 537-3510 Fax: (410) 537-4883

2. For any other instance of noncompliance with this permit, the permittee shall, within five days, provide the Department with the following information in writing:
    - a. A description of the noncompliant discharge, including its impact on the receiving water;
    - b. The cause of the noncompliance;
    - c. The anticipated time the cause of the noncompliance is expected to continue, or, if the condition has been corrected, the duration of the period of the noncompliance;
    - d. Steps taken by the permittee to eliminate the noncompliant discharge;
    - e. Steps planned or implemented by the permittee to prevent the recurrence of the noncompliance;
-

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- f. A description of the permittees accelerated or additional monitoring to determine the nature and impact of the noncompliant discharge.
3. The permittee shall take all reasonable steps to minimize or prevent any adverse impact to the waters of this State or to human health from noncompliance with any effluent limitations specified in this permit.

## **PART VII. VIOLATION OF PERMIT CONDITIONS**

### **A. Compliance with this General Permit and Water Pollution Abatement Statutes**

The permittee shall comply at all times with the terms and conditions of this permit, the provisions of the Environment Article, Title 7, Subtitle 2 and Title 9, Subtitles 2 and 3 of the Annotated Code of Maryland, and the Federal Clean Water Act, 33 U.S.C. § 1251 et seq.

### **B. Civil and Criminal Liability**

Except as provided in the permit conditions on “bypassing” and “upset”, nothing in this permit shall be construed to preclude the institution of any legal action nor relieve the permittee from any civil or criminal responsibilities, liabilities, and/or penalties for noncompliance with Title 9 of the Environment Article, Annotated Code of Maryland or any federal, local or other state law or regulation.

### **C. Action on Violations**

The issue or reissue of this permit does not constitute a decision by the State not to proceed in an administrative, civil, or criminal action for any violations of State law or regulations occurring before the issuance or re-issuance of this permit, nor a waiver of the State’s right to do so.

### **D. Civil Penalties for Violations of Permit Conditions**

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Federal Clean Water Act (CWA) provides that any person who violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act or in a permit issued under Section 404 of the CWA, is subject to a civil penalty not to exceed \$25,000 per day for each violation.

### **E. Criminal Penalties for Violations of Permit Conditions**

In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the CWA provides that:

1. Any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA, or in a permit issued under Section 404 of the CWA, is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one (1) year, or by both.
  2. Any person who knowingly violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA, or in a permit issued under Section 404 of the CWA, is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three (3) years, or by both.
  3. Any person who knowingly violates Section 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA, or in a permit issued under Section 404 of the CWA, and who knows
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at that time that he thereby places another person in imminent danger of death or serious bodily injury, is subject to a fine of not more than \$250,000 or imprisonment of not more than fifteen (15) years, or both. A person that is a corporation, shall, upon conviction, be subject to a penalty of not more than \$1,000,000.

**F. *Penalties for Falsification and Tampering***

The Environment Article, §9-343, Annotated Code of Maryland provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with or renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both. The Federal Clean Water Act provides that any person who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under the CWA, or who knowingly makes any false statement, representation, or certification in any records or other documents submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or by both.

**PART VIII. GENERAL CONDITIONS**

**A. *Right of Entry***

1. The permittee shall permit the Secretary of the Department, the Regional Administrator for the EPA, or their authorized representatives, upon the presentation of credentials:
  - a. To enter upon the permittees premises where an effluent source is located or where any records are required to be kept under the terms and conditions of this permit;
  - b. To access and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
  - c. To inspect, at reasonable times, any monitoring equipment or monitoring method required in this permit;
  - d. To inspect, at reasonable times, any collection, treatment, pollution management, or discharge facilities required under this permit;
  - e. To sample, at reasonable times, any discharge of pollutants; and
  - f. To take photographs.
2. The permittee shall permit access for Department approved staff for research purposes. This includes allowing water samples within the marina, sediment and associated photographs.

**B. *Property Rights/Compliance with Other Requirements***

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

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**C. *Duty to Provide Information***

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Department, upon request, copies of records required to be kept by this permit.

**D. *Bypassing***

Any bypass of treatment facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited unless:

1. The bypass is unavoidable to prevent a loss of life, personal injury or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources;
2. There are no feasible alternatives;
3. Notification is received by the Department within 24 hours (if orally notified, then followed by a written submission within five calendar days of the permittee becoming aware of the bypass). Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten calendar days before the date of bypass or at the earliest possible date if the period of advance knowledge is less than ten calendar days; and
4. The bypass is allowed under conditions determined by the Department to be necessary to minimize adverse effects.

**E. *Conditions Necessary for Demonstration of an Upset***

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

1. an upset occurred and that the permittee can identify the specific cause(s) of the upset;
2. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
3. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of identified in the Non-Compliance conditions PART VI - Section H above;
4. the permittee submitted, within five calendar days of becoming aware of the upset, documentation to support and justify the upset; and
5. the permittee complied with any remedial measures required to minimize adverse impact.

**F. *Removed Substances***

Wastes such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewaters, or facility operations, shall be disposed of in a manner to prevent any removed substances or runoff from such substances from entering or from being placed in a location where they may enter the waters of the State.

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**G. Facility Operation and Maintenance**

Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of the permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar system which is installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

**H. Other Information**

When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the NOI or in any other report to the Department, he or she shall submit, within 30 days, the facts or information.

**I. Availability of Reports**

Except for data determined to be confidential under the Maryland Public Information Act and/or Section 308 of the Clean Water Act, 33 U.S.C. § 1318, all submitted data shall be available for public inspection at the offices of the Department and the Regional Administrator of the Environmental Protection Agency.

**J. Toxic Pollutants**

The permittee shall comply with effluent standards or prohibitions for toxic pollutants established under the Federal Act, or under Section 9-314 and Sections 9-322 to 9-328 of the Environment Article, Annotated Code of Maryland. Compliance shall be achieved within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

**K. Oil and Hazardous Substances Prohibited**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibility, liability, or penalties to which the permittee may be subject under Section 311 of the Clean Water Act (33 U.S.C. § 1321), or under the Annotated Code of Maryland.

**L. Water Construction and Obstruction**

This permit does not authorize the construction or placing of physical structures, facilities, or debris or the undertaking of related activities in any waters of the State.

**M. Protection of Water Quality**

It is a violation of this permit to discharge any substance not otherwise identified in the effluent limits of PART IV-B of this permit at a level which would cause or contribute to any exceedance of the numerical water quality standards in COMAR 26.08.02.03. If an authorized discharge regulated by this permit causes or contributes to an exceedance of the water quality standards in COMAR 26.08.02.03, including but not limited to the general water quality standards, the Department is authorized to exercise its powers to modify, suspend or revoke the discharge authorization.

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**N. Permit Modification**

The Department may revoke this permit or modify this permit to include different limitations and requirements, in accordance with the procedures contained in COMAR 26.08.04.10 and 40 C.F.R. §§ 122.62, 122.63, 122.64 and 124.5.

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301, 304, and 307 of the Federal Clean Water Act [33 USCS §§ 1311, 1314, 1317] if the effluent standard or limitation so issued or approved:

1. contains different conditions or is otherwise more stringent than any effluent limitation in this permit or
2. controls any pollutant not limited in this permit. This permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable.

**O. Total Maximum Daily Load (TMDL)**

The permit may be reopened in accordance with Maryland's Administrative Procedures Act to incorporate future Total Maximum Daily Load requirements.

**P. Severability**

The provisions of this permit are severable. If any provisions of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this permit to any circumstances is held invalid, its application to other circumstances shall not be affected.

**PART IX. AUTHORITY TO ISSUE GENERAL NPDES PERMITS**

On September 5, 1974, the Administrator of the EPA approved the proposal submitted by the State of Maryland for the operation of a permit program for discharges into navigable waters under Section 402 of the Federal Clean Water Act, 33 U.S.C. Section 1342.

On September 30, 1990, the Administrator of the EPA approved the proposal submitted by the State of Maryland for the operation of a general permit program.

Under the approvals described above, this general discharge permit is both a State of Maryland general discharge permit and a NPDES general permit.

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Jay Sakai, Director  
Water Management Administration

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Appendix A:  
Quarterly Visual Monitoring

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### Quarterly Visual Monitoring Form

Fill out a separate form for each sample collected (one form per outfall)

Facility					Permit ID: 10-MA	
Outfall No.		Examiner's Name & Title				
Quarter / Year:		Date / Time Collected:			Date / Time Examined:	
Rainfall Amount:		Qualifying Storm?	Yes	No	Runoff Source:	Rainfall    Snowmelt
Parameter	Parameter Description		Parameter Characteristics			
1. Color	Does the storm water appear to have any color? Yes                      No (Clear)		If Yes, describe:    Yellow    Brown    Red    Gray Other:			
2. Clarity	Is the storm water clear? Yes                      No		If not clear, which of the following best describes the clarity of the storm water? Suspended Solids    Milky/Cloudy    Opaque Other:			
3. Oil Sheen	Can you see a rainbow effect or sheen on the water surface? Yes                      No		Which best describes the sheen? Rainbow sheet    Floating oil globules Other:			
4. Odor	Does the sample have an odor? Yes                      No		If Yes, describe:    Chemical    Musty    Rotten Eggs Sewage    Sour Milk    Oil/Petroleum Other:			
5. Floating Solids	Is there anything on the surface of the sample? Yes                      No		If Yes, describe:    Suds    Oily Film    Garbage Sewage    Water Fowl Excrement Other:			
6. Suspended Solids	Is there anything suspended in the sample? Yes                      No		Describe:			
***wait 30 minutes***						
7. Settled Solids	Is there something settled on the bottom of the sample? Yes                      No		Describe: (wait 30 minutes after collection, note type, size and material)			
8. Foam	Is there foam or material forming on the top of the sample surface? Yes                      No		Describe: (shake bottle gently, is there foam?)			

Detail any concerns, corrective actions taken and any other indicators of pollution present in the sample. This should include the identified source if there are visible indicators present in the sample:

Storm Water Examiner's Signature and Date:

Note – Sample should be collected and analyzed in a colorless glass or plastic bottle.

## **Instructions for Completing the Visual Monitoring Form**

The Department requires visual monitoring of storm water as an indicator of the effectiveness of the control measures utilized in the facility's storm water pollution prevention plan. Once each quarter for the entire permit term, permittees must collect a storm water sample from each outfall and conduct a visual assessment of each of these samples. These samples should be collected in such a manner that they are representative of the storm water discharge. If there are no direct means of conveyance (i.e., pipe) for a collection sample, a sample representative of the site conditions must be collected at the discharge point closest to the waters of the State. Each assessment must be kept onsite and available for inspection and review by the Department at anytime. All inspections must be performed during daylight hours, and collected within 30 minutes of a storm event.

Fill out all information on the top of the visual monitoring form. To provide the best estimate of rainfall, use a rain gage or a website which provides this information (i.e., <http://www.cocorahs.org/state.aspx?state=md>). Take a grab sample in a clear container. Evaluate the sample in a well-lit area for the following parameters:

- A. Color:** Record the best description of the sample color in the appropriate space on the form. Color may indicate inappropriate discharge.
- B. Clarity:** This parameter refers to the degree of cloudiness present in the sample. It is *usually* an indication of fewer pollutants in the water if the sample is clear or transparent. If the clarity has changed since the last sample, identify what might have caused this to happen.
  - 1. Clear-**Sample doesn't filter out any light; can be seen through regardless of color.
  - 2. Cloudy-**Sample filters out some light; not clear but objects can still be identified when looking through the sample.
  - 3. Very Cloudy-**Sample filters out most light; objects are indiscernible when looking through the sample.
  - 4. Opaque-**Sample doesn't allow any light to pass through; objects cannot be seen when looking through the sample.
- C. Oil Sheen:** Record whether or not an oil sheen is present. If a film of iridescent color is noted on the surface of the sample or a rainbow effect appears to be floating on the surface of the water, this usually indicates oil is present.
- D. Odor:** If sample has no odor other than natural rainwater or snowmelt, write "NO" on the visual monitoring form. Note the presence of any of the following odors if detected: Gasoline, diesel, oil, solvents (WD-40, other petroleum products, etc.), garbage, fishy, sweet/sugary, any other unusual odors not normally present in clean runoff from the area sampled.
- E. Floating Solids:** A contaminated flow may contain floatable solids or liquids. Identifying floatables can aid in finding the source of the contamination. Examples of floatables are spoiled food products, oils, plant parts, solvents, sawdust, foams and fuel. Give a general description of the type of floating solids present (wood chips, leaf debris, algae, etc) in the general comments section for each sample. Identify amount of floating solids as described below.
  - 1. High-** More than 20% of the surface of the sample is covered with floating solids.
  - 2. Moderate-** Less than 20% of the surface of the sample is covered with floating solids.
  - 3. Slight-**Only a few floating particles observed on the surface of the sample.
  - 4. None-** No floating solids present on the surface of the sample.
- F. Suspended solids:** Record whether or not settled solids were present in the sample. Suspended solids will be suspended within the column of water and may contribute to changes in water color or clarity. Cracked or deteriorated concrete or peeling surface paint at an outfall usually indicates the presence of severely contaminated discharges. Contaminants causing this type of damage are usually very acidic or basic.

----- WAIT 30 MINUTES -----

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- G. Settled Solids:** After 30 minutes has passed, give a general description of the type of settled solids present (sand, decayed plant matter, rust particles etc) in the general comments section for each sample.
- H. Foam:** After completing #7, shake the bottle *gently*. Record foam results on the form as they most closely match one of the descriptions listed below.
1. **None**-Most bubbles break down within ten (10) seconds of shaking; only a few large bubbles persist longer than ten (10) seconds.
  2. **Moderate**-Many small bubbles are present but these bubbles persist for less than two (minutes) after shaking.
  3. **High**-Many small bubbles are present and they persist longer than two (2) minutes after shaking.

Detail any concerns, corrective actions taken and any other indicators of pollution present in the sample. This should include the identified source if there are visible indicators present in the sample. The person performing test must sign and date each form.

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**MONTGOMERY COUNTY  
MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4) PROGRAM  
INSPECTION REPORT**

**February 2014**

**U.S. Environmental Protection Agency, Region 3  
Water Protection Division  
Office of NPDES Enforcement (3WP42)  
1650 Arch Street  
Philadelphia, PA 19103**

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## EXECUTIVE SUMMARY

From June 27 through 28, 2013, an Inspection Team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, Eastern Research Group, Inc. (ERG), collectively the EPA inspection team, conducted an inspection of the municipal separate storm sewer system (MS4) program of Montgomery County.

The purpose of this inspection was to obtain information that will assist EPA in assessing Montgomery County's compliance with the requirements of its Maryland Pollution Discharge Elimination System Permit Number MD0068349, as well as the implementation status of its current MS4 program. Table 1 below summarizes the permit requirements and the observations made by the inspection team.

**Table 1. Summary of Permit Requirements and Inspection Observations**

Observations	
<b>Part III.E1: Stormwater Management</b>	<b>Observation 1:</b> At the time of the inspection, Montgomery County was not conducting routine maintenance inspections of environmental site design (ESD) best management practices (BMPs) on a triennial basis.
<b>Part III.E.2 – Erosion and Sediment Control</b>	<b>Observation 2:</b> It appears that inspectors are not ensuring construction sites are complying with approved Erosion and Sediment Control Plans.
	<b>Observation 3:</b> At the time of the inspection, Montgomery County inspectors were not evaluating concrete washout areas.
	<b>Observation 4:</b> It appears that inspections of construction sites are not occurring on average every two weeks.
<b>Part III.E.3: Illicit Discharge Detection and Elimination</b>	<b>Observation 5:</b> It appears that Montgomery County is not ensuring that all non-stormwater and non-permitted discharges to the MS4 are eliminated.



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## INTRODUCTION

From June 27 through 28, 2013, an EPA Inspection Team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, Eastern Research Group, Inc. (ERG), collectively the EPA inspection team, conducted an inspection of municipal separate storm sewer system (MS4) program of Montgomery County. Discharges from Montgomery County's MS4 are regulated by Maryland Pollution Discharge Elimination System Permit Number MD0068349 (the Permit), which is included in Appendix 1.

The purpose of this inspection was to obtain information that will assist EPA in assessing Montgomery County's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program. The inspection schedule is presented in Appendix 2.

The EPA Inspection Team obtained its information through a series of interviews with representatives from Montgomery County, along with a series of site visits, record reviews, and field verification activities. The primary representatives involved in the inspection were the following:

Montgomery County  
Representatives:

**Department of General Services (DGS)**

Mr. Mike Lowe, Project Manager  
Mr. Del Spurrier, Manager  
Mr. Charles Thayer, Manager

**Department of Transportation (DOT)**

Mr. Anthony Alexis  
Mr. Richard Dorsey, Manager  
Ms. Ligia Moss  
Mr. Steve Suprata, Program Manager

**Department of Permitting Services (DPS)**

Mr. Yung-Tsung Kang, Senior IT Specialist

**Land Development Division**

Mr. Mark Etheridge, Water Resources Plan Review Manager  
Mr. Derek Isensee, Sediment/Stormwater Inspection Manager

**Department of Environmental Protection (DEP)**

**Office of the Director**

Ms. Ho-Ching Fong, GIS Specialist  
Ms. Krystal Kliger, GIS Specialist  
Ms. Sarah Ramirez, GIS Specialist

**Division of Watershed Management (WMD)**

Mr. Craig Carson, Watershed Restoration Manager  
Ms. Meosotis Curtis, Manager, Watershed Planning and Monitoring  
Mr. Don Dorsey, Stream Restoration Planner  
Mr. Ed Edmiston, Inspector  
Mr. Francis Flabbi, Inspector  
Mr. Brian Gregg, Inspector  
Ms. Julia Liu, Stormwater Facility Engineer

Mr. Ron Milberg, Program Manager  
Mr. Jerry Oden, Field Supervisor  
Ms. Pam Parker, Supervisor, MS4 Program  
Mr. Stephen Pullum, Inspector  
Mr. Steven Shofar, Division Chief  
Ms. Amy Stevens, Inspection and Maintenance Program Manager  
Ms. Mary Travaglini, Landscape Architect

**Division of Environmental Policy and Compliance (DEPC)**

Ms. Sue Allen, Environmental Health Specialist  
Mr. Stan Edwards, Division Chief  
Ms. Gretchen Ekstrom, Environmental Health Specialist  
Mr. Steve Martin, Environmental Compliance Supervisor  
Mr. Dan McCann, Environmental Health Specialist  
Mr. Alex Torrella, Environmental Health Specialist

**Division of Solid Waste Services (DSW): Central Operations Section**

Mr. David Rosenbaum, Program Manager

Montgomery County  
Public Schools (MCPS)  
Representatives:

Mr. Agustin Diaz, Environmental Specialist  
Mr. Allen Geisler, DFM Central Supervisor  
Mr. Brian Mullikin, Environmental Team Leader  
Mr. Larry Riner

Stormwater Maintenance,  
LLC. Representatives:

Mr. Lee Dregier, II, Inspector Supervisor  
Mr. Greg Harless, Inspector  
Mr. Sam Rosenberg, Inspector

EPA Representatives:

Mr. Matt Colip, NPDES Enforcement Officer  
Ms. Kyle Zieba, NPDES Enforcement Officer

EPA Contractors:

Ms. Jessica Gray, ERG  
Ms. Kavya Kasturi, ERG  
Ms. Lauren Scott, ERG  
Ms. Daisy Wang, ERG  
Ms. Kathleen Wu, ERG

A complete list of all inspection participants is included in Appendix 3.

During the inspection, the EPA Inspection Team obtained documentation regarding compliance with the Permit. Pertinent information may have been obtained prior, and/or after meeting with Montgomery County staff during the physical inspection, and is presented in this report as observations. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation. All referenced documentation is provided in Appendix 4 and photographs taken during the inspection are provided in Appendix

5. A complete list of documents obtained is provided as a Document Log in Appendix 6. Appendix 7 includes an email dated September 27, 2013 with attached spreadsheet provided by Pamela Parker, Stormwater Permit Coordination Section, Department of Environmental Protection, Montgomery County to Ms. Kyle J. Zieba, Enforcement Officer, EPA Region 3 providing clarification and lists of municipal facilities covered by MDE's General Permit for Stormwater Discharges. Any additional information or documents provided by Montgomery County after this report is finalized will be added to EPA's files.

The report identifies Permit requirements with specific sections cited and observations made during the inspection. The format of the report follows the numeric system used in the Permit and is sequential. Sections of the permit are restated with observations about those requirements listed below.

Additionally, Appendix 8 provides compliance assistance and/or suggestions for MS4 program improvement, where applicable.

## **MONTGOMERY COUNTY BACKGROUND**

Montgomery County is co-permitted with Montgomery County Public Schools and the following localities: the Towns of Chevy Chase, Chevy Chase Village, Kensington, Somerset, and Poolesville; and the Village of Friendship Heights. Montgomery County has been developing and implementing its MS4 program since 1996. Montgomery County's coverage under the current Permit became effective on February 16, 2010 with an expiration date of February 15, 2015.

Montgomery County encompasses approximately 314,400 acres of land, and is bordered on the south west by the Potomac River, on the north west by Frederick County, on the north east by the Patuxent River and Howard County, and on the south east by Prince George's County and the District of Columbia. The total population of Montgomery County is estimated to be 1,004,709 people in 2012<sup>1</sup>. The MS4 ultimately discharges into the Potomac River and the Patuxent River, which both drain into the Chesapeake Bay. The county has 8 major watersheds, which are divided into numerous sub-watersheds.

Currently, Montgomery County has approximately 160 staff including approximately 55 inspectors to implement the MS4 program. Montgomery County also uses the services of contractors, including Stormwater Maintenance, LLC; Johnson, Mirmiran, and Thompson; and Delon Hampton and Associates.

Based on Montgomery County's Fiscal Year 2012 Annual Report (Annual Report), in 2013 Montgomery County charged a Water Quality Protection Charge (WQPC) of \$92.60 per year per equivalent residential unit (ERU) to finance the MS4 program. This charge has been in place since 2002, and provided approximately \$25 million in revenue in 2012 for the program. According to the Annual Report, the total funding for the county's MS4 related programs was \$30,097,236 for the 2011 fiscal year and \$30,302,225 for the 2012 fiscal year. This does not include operational costs, of county Department of Transportation and Department of General Services, associated with property management or pollution prevention. Those agencies do not

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<sup>1</sup> <http://quickfacts.census.gov/qfd/states/24/24031.html>

separate out those specific costs from their other operating costs. The county had a total budget of \$4.4 billion for the 2012 fiscal year<sup>2</sup>.

## **INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS**

Dry weather conditions were experienced throughout most of the inspection activities. Weather history reports indicated that there was 0.16 inches of precipitation in Montgomery County during the field work component of the inspection activities. In addition, the weather history reports indicated that approximately 0.80 inches of precipitation fell during the three day period prior to the inspection and approximately 1.36 inches fell during the three day period immediately following the inspection.

### **Part III.E – Management Programs**

The following management programs shall be implemented in areas served by the County's municipal separate storm sewer system. These management programs are designed to control stormwater discharges to the maximum extent practicable (MEP) and shall be maintained for the term of this permit. Additionally, these programs shall be integrated with other permit requirements to promote a comprehensive adaptive approach toward solving water quality problems. The County shall modify these programs according to Part III.1. and address any needed program improvements identified as a result of periodic evaluation and within the timeframe specified by MDE.

#### **Part III.E.1 – Stormwater Management**

An acceptable stormwater management program shall be maintained in accordance with the Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland. At a minimum, the County shall:

- a. Conduct preventative maintenance inspections of all stormwater management facilities at least on a triennial basis. Documentation identifying the facilities inspected, the number of maintenance inspections, follow-up inspections, the enforcement action(s) used to ensure compliance, the maintenance inspection schedules, and any other relevant information shall be submitted in the County's annual reports.
- b. Implement the storm water management design policies, principles, methods, and practices found in the *2000 Maryland Stormwater Design Manual* and the provisions of Maryland's *Stormwater Management Act of 2007* (Act). This includes, but is not limited to:
  - i. Within one year of State adoption of regulations required under the Act, modify the County stormwater management ordinance, regulations, and new development plans review and approval processes in order to implement environmental site design (ESD) to the maximum extent practicable (MEP);
  - ii. Within one year of State adoption of regulations required under the Act, review existing planning and zoning and public works ordinances and other local codes to identify impediments to, and opportunities for, promoting the implementation of environmental site design (ESD) to the MEP;
  - iii. Within two years of State adoption of regulations required under the Act, modify those ordinances and codes identified in Part III.E.1.b.ii. above to

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<sup>2</sup> <http://www6.montgomerycountymd.gov/apps/News/Blog/pioBlog.asp?blogID=28&blogItemID=1229>

- eliminate impediments to, and promote implementation of, ESD to the MEP;  
and
- iv. Report annually the modifications that have or need to be made to all ordinances, regulations, and new development plans review and approval processes to accommodate the requirements of the Act.
- c. Maintain programmatic and implementation information according to the requirements established as part of MDE's triennial stormwater program review.

Observation 1: At the time of the inspection, Montgomery County was not conducting routine maintenance inspections of environmental site design (ESD) best management practices (BMPs) on a triennial basis. Ms. Amy Stevens, the Inspection and Maintenance Program Manager, stated that Montgomery County does not conduct routine maintenance inspections of all of the approximately 2,047 environmental site design (ESD) best management practices (BMPs) on a triennial basis. Ms. Stevens stated that the county is developing a program to inspect the ESD BMPs. Montgomery County has approximately 7,425 BMPs including aboveground practices, underground practices, and ESD practices. In documentation provided by the county, the county stated that the ESD BMPs may include practices in the following categories that have been designed to meet ESD criteria: bioswales, cisterns, dry wells, green roofs, infiltration berms, landscape infiltration, micro-bioretenion, micro-infiltration trenches, porous pavement, rain barrels, rain gardens, submerged gravel wetlands, vegetated swales, tree boxes, wet swales, disconnection of rooftop and non-rooftop runoff, sheetflow to conservation area, and reinforced turf (see Exhibit 1 in Appendix 4).

In a letter dated June 7, 2013, MDE provided their review of Montgomery County's stormwater management program (SWMP). As part of the review, MDE evaluated the County's plan review and approval process in order to assess the status of implementing ESD to the MEP. In the letter, MDE states:

- Montgomery County has also developed specific guidance on how various ESD practices should be designed and/or implemented locally. These documents supplement the 2000 Maryland Stormwater Design Manual by providing additional information and outlining local design criteria for specific practices. The County is commended for providing guidance on local requirements to ensure consistent design.

MDE noted the following deficiencies in the County's SWMP:

- Many applicants were not properly implementing ESD to the MEP. In several of the designs reviewed by MDE, ESD was used to provide only the minimum treatment (i.e., runoff from one inch of rainfall) even when there may have been more opportunities for its use.

- Montgomery County needs to be more diligent in the in applying the MEP standard.
- Montgomery County needs to be more diligent in ensuring that materials used in the construction of stormwater management practices match those specified on the approved plans.

### **Part III.E.2 – Erosion and Sediment Control**

An acceptable erosion and sediment control program shall be maintained in accordance with the Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland.

Observation 2: It appears that inspectors are not ensuring construction sites are complying with approved Erosion and Sediment Control Plans. The Inspection Team shadowed Mr. Jon Griffiths while he conducted an inspection of the Travilah Fire Station #32 construction site, located at 9615 Darnestown Road, Rockville, Maryland 20850, on June 28, 2013. It appears that areas excavated for stormwater management facilities and/or ESD practices at the Travilah Fire Station construction site were receiving surface drainage flows and serving as temporary sediment basins. There was erosion and gullies directing sediment into Submerged Gravel Wetland #1 (see Photograph 4 in Appendix 5), Submerged Gravel Wetland #2 (see Photographs 1-3 in Appendix 5), and Forebay #2 (see Photograph 5 in Appendix 5).

The Erosion and Sediment Control Plan approved on February 24, 2011 under Sequence of Construction Phase 2 requires the site to “install silt fence around SWM facilities to prevent sediment from depositing into these areas” (see E&S Plan, Sheet 4).

Observation 3: At the time of the inspection, Montgomery County inspectors were not evaluating concrete washout areas, and were not familiar with BMPs for concrete washout structures. The Inspection Team shadowed Mr. Jon Griffiths while he conducted an inspection of the Travilah Fire Station #32 construction site, located at 9615 Darnestown Road, Rockville, Maryland 20850, on June 28, 2013. During the inspection, concrete washout residue was observed across the site including, but not limited to, areas adjacent to Forebay #2 and Submerged Gravel Wetland #1 (see Photograph 6 in Appendix 5).

Observation 4: It appears that inspections of construction sites are not occurring on average every two weeks. The Inspection Team shadowed Mr. Jay Fairley through the Goddard School construction site on June 28, 2013. The Goddard School site’s Sediment Control Permit was issued by the Department of Permitting Services on August 7, 2012. According to Mr. Fairley’s inspection report dated June 28, 2013 (see Exhibit 2 in Appendix 4), the following issues were identified:



- the super silt fence fabric needs patched, properly joined and the chain link needs properly joined as instructed;
- the silt fence at the sanitary outfall needs repaired and reset at the privacy fence;
- addition (sic) silt fence needs installed along the privacy fence to contain the sites runoff as discussed;
- permanently stability the residents' yard with seed and erosion control matting or sod as this area is now outside of the controls;
- repair the diversion dike at the retaining wall as instructed;
- repair the inlet protection at the yard inlets as instructed;
- immediately stabilize the areas outside the controls along 355 with seed and erosion control matting;
- repair the silt fence along 355;
- repair/reset the super silt fence to the left of the entrance;
- replace the construction entrance from the end of the CR-6;
- repair/replace the inlet protection at for the grade inlets next to the entrance;
- install additional silt fence at the right side of the entrance;
- reset the super silt fence below the inlet at the start of the deceleration lane;
- clean the accumulated sediment from the street and sidewalk below the storm sewer outfall;
- remove the dirt bag and stabilize the disturbance with seed and erosion control matting or sod;
- replace the erosion control matting and re-seed the area or stabilize with sod at Str. E-62;
- replace the silt fence and stabilize the channel with seed and erosion control matting or sod above Str. #I-60; and,
- stabilize the disturbed are across 355 from the gas line installation.

At the end of the inspection, Mr. Fairley issued citations to the site: one for failure to maintain sediment control measures and one for causing soil, sand, gravel or rock deposits to flow into a storm drain. Each citation requires the payment of a \$1,000 fine for a total of \$2,000 for the violations cited (see Exhibit 3 in Appendix 4).

The previous E&S inspection conducted by Mr. Fairley at the Goddard School site was on May 24, 2013 (see Exhibit 4 in Appendix 4). The following issues were noted in the inspection report dated May 24, 2013:

- repair the silt and super silt fences;
- all disturbed area outside the controls (Rte. #355) must be immediately stabilized as instructed;
- install silt fence at the bottom of the deceleration land as instructed to contain the sites runoff;

- install additional silt fence at both sides of the entrance to contain the sites runoff; and
- repair the construction entrance.

On May 24, 2013, Mr. Fairley started a case and issued an NOV for non-compliance with the conditions of the approved plan.

According to the documentation provided to EPA by the County, Mr. Fairley conducted E&S inspections at the Goddard School site on the following dates: 5/20/13, 4/24/13, 4/12/13, 4/3/13, 3/25/13, and 1/31/13 (see Exhibit 5 in Appendix 4).

### **Part III.E.3 – Illicit Discharge Detection and Elimination**

The County shall implement an inspection and enforcement program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated. At a minimum, activities shall include:

- a. Field screening at least 150 outfalls annually. Each outfall having a discharge shall be sampled using a chemical test kit. Within one year of permit issuance, an alternative program may be submitted for MDE approval that methodically identifies, investigates, and eliminates illegal connections to the County's storm drain system;
- b. Conducting routine surveys of commercial and industrial areas for discovering and eliminating pollutant sources. Areas surveyed shall be reported annually;
- c. Maintaining a program to address illegal discharges, dumping, and spills;
- d. Using appropriate enforcement procedures for investigating and eliminating illicit discharges, illegal dumping, and spills. Significant discharges shall be reported to MDE for enforcement and or permitting; and
- e. Reporting illicit discharge detection and elimination activities as specified in PART IV of this permit.

Observation 5: It appears that Montgomery County is not ensuring that all non-stormwater and non-permitted discharges to the MS4 are eliminated. While shadowing two county inspectors at the Gaithersburg Highway Maintenance Depot on June 27, 2013, located at 16630 Crabbs Branch Way, Rockville MD, the EPA Inspection Team observed wash water entering a site storm drain from a truck wash building (see Photographs 1 through 5 in Appendix 5). The county inspectors did not verbally acknowledge the illicit discharge during the inspection. In the inspection report from that day, the inspectors did not note that the discharge occurred (see Exhibit 6 in Appendix 4). Furthermore, in the monthly SWPPP inspection reports from January 2013 to present, the inspectors noted twice that the truck wash building was dirty and had to be cleaned, but never noted a discharge of wash water from the wash building.



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U.S. Environmental Protection Agency  
Office of Compliance and Enforcement  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

U.S. Environmental Protection Agency, Region 3  
Water Protection Division, Office of Enforcement  
1650 Arch Street  
Philadelphia, PA 19103

**MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4)  
PROGRAM COMPLIANCE INSPECTION**

**PRINCE GEORGE'S COUNTY, MARYLAND**

**FINAL INSPECTION REPORT**

**Inspection Date:**  
**March 10–11, 2011**

**Report Date:**  
**November 29, 2011**

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## Major Documents and Abbreviations Used

Short-name	Document Title and Date
COMAR	<i>Code of Maryland Regulations</i>
Industrial General Permit	<i>Maryland Department of the Environment /National Pollutant Discharge Elimination System General Discharge Permit for Storm Water Associated with Industrial Activities, No. 02-SW, effective December 1, 2002</i>
Permit	<i>Maryland Department of the Environment /National Pollutant Discharge Elimination System Municipal Separate Storm Sewer Systems Permit No. MD0068314 (99-DP-3317), effective June 15, 2005</i>

## Introduction

On March 10–11, 2011, the U.S. Environmental Protection Agency (EPA), Region 3, and an EPA contractor, PG Environmental, LLC (hereinafter, collectively, the EPA Inspection Team) conducted an inspection of the Prince George's County (hereinafter, County or Permittee) Municipal Separate Storm Sewer System (MS4) Program. Discharges from the County's MS4 are regulated under the *Maryland Department of the Environment (MDE)/National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit*, No. MD0068284 (hereinafter, the Permit), effective October 13, 2004. The Permit expired October 13, 2009, but has been administratively extended by MDE. The County was first permitted under an NPDES Phase I MS4 permit in 1993, and it has been developing its MS4 Program since that time.

Approximately 22 individual municipalities within the County are covered under a separate Phase II MS4 permit. There is an informal agreement between MDE, the County, and the Phase II municipalities for the County to provide technical assistance to the Phase II municipalities, specifically regarding implementation of the Phase II MS4 pollution prevention and illicit discharge detection and elimination programs.

The County encompasses approximately 498 square miles, of which about 485 square miles is land and 13 square miles is water. With the exception of the City of Bowie, the entire County is covered under the Permit. The County has two primary receiving waters: The Potomac River serves as the primary receiving water for the western half of the County; the Patuxent River, for the eastern half of the County.

The County is surrounded by Anne Arundel County to the east, Calvert County and Charles County to the southeast and south, Howard County and Montgomery County to the north and northwest, Fairfax County and Alexandria County to the southwest, and Washington, D.C., to the west. The total population of the County was estimated to be 863,420 people at the time of the 2010 U.S. Census.

The purpose of the inspection was to obtain information that will assist EPA in assessing the County's compliance with the requirements of the Permit. The inspection schedule is presented in Appendix A.

The EPA Inspection Team obtained information through a series of interviews with representatives from the County Department of Environmental Resources (DER) and Department of Public Works and Transportation (DPW&T), along with a series of site visits, record reviews, and field verification activities. The primary representatives involved in the inspection were the following:

<b>Prince George's County MS4 Program Compliance Inspection: March 10–11, 2011</b>	
Department of Environmental Resources (DER)	Samuel Moki, Environmental Services Group Associate Director Jerry Maldonado, Water Quality and Compliance (WQ&C) Program Manager Kemba Saibou, Planner, Pollution Prevention (P2) Coordinator Mary Conway, WQ&C Team Supervisor Deborah Weller, Watershed Assessment and Planning Specialist
Department of Public Works and Transportation (DPW&T)	Rey de Guzman, Division Chief, Engineering and Inspection Division Peter Dean, District 5 Engineer Russell Carroll, District 2 Engineer George Holmes, District Engineer
EPA Representatives	Chuck Schadel, EPA Region 3 Allison Graham, EPA Region 3
EPA Contractors	Scott Coulson, PG Environmental, LLC Max Kuker, PG Environmental, LLC Katie Bradshaw, PG Environmental, LLC

Wet weather conditions were experienced during some of the inspection activities. Weather history reports<sup>1</sup> indicate that approximately 1.41 inches of precipitation fell in the Prince George's County area on March 10, 2011. Additionally, approximately 0.02 inch of precipitation occurred on March 11, 2011. Field activities were conducted on both days.

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<sup>1</sup> Weather history reports for Reagan National Airport were obtained from the National Weather Service website (<http://www.weather.gov/climate/index.php?wfo=lwx>).

## Information Recorded in this Report

During the MS4 inspection, the EPA Inspection Team obtained documentation and other supporting evidence regarding compliance with the Permit. Pertinent information obtained from the inspection is presented in this report. The information in this report may have been obtained prior, and/or after meeting with County staff on March 10–11, 2011. The presentation of observations, statements, and/or references recorded in this report does not constitute a compliance determination or notice of violation. All referenced documentation used as supporting evidence is provided in Appendix B, and photo documentation is provided in Appendix C.

### ***Section A. Stormwater Management***

Part III.E.1 of the Permit requires the County to maintain a stormwater management program that is in accordance with the Environment Article, Title 4, Subtitle 2, *Annotated Code of Maryland*. The *Code of Maryland Regulations* (COMAR) 26.17.02 specifies regulations that govern stormwater management for the development or redevelopment of land with the goal of maintaining predevelopment runoff characteristics and reducing stream channel erosion, pollution, siltation, sedimentation, and local flooding.

#### **Observation 1. Preventative Maintenance Inspections**

Part III.E.1.a of the Permit requires that the County “Conduct preventative maintenance inspections of all stormwater management facilities at least on a triennial basis.”

The County has a total of 1,372 stormwater management facilities—582 designated as private and 790 designated as public. The County has inspected 327 out of 582 private stormwater management facilities within the past three years. A total of 187 out of the 327 inspected best management practices (BMPs) were determined to need follow-up action such as “maintenance, cleaning, repair needed, or no access available.” A total of 104 BMPs were determined to need formal re-inspection or follow-up inspection, 282 BMPs were determined to be in compliance, 7 BMPs are in communication and/or working toward compliance, and 27 BMPs are pending compliance or referred to DPW&T for public maintenance.

Out of the 790 public stormwater management facilities in the County, 228 were inspected in 2009 and 122 were inspected in 2008. An additional 440 public stormwater management facilities required inspection in 2010 to meet the triennial preventative maintenance inspection requirement.

Based on this information, the County had not conducted preventative maintenance inspections of all stormwater management facilities on a triennial basis.



## ***Section B. Erosion and Sediment Control***

Part III.E.2 of the Permit requires the County to maintain an acceptable erosion and sediment control program in accordance with the Environment Article, Title 4, Subtitle 1, *Annotated Code of Maryland*. COMAR 26.17.01 specifies regulations that govern erosion and sediment control to reduce pollutants in stormwater runoff from construction sites.

### **B.1. Construction Site Visits**

On March 10–11, 2011, the EPA Inspection Team conducted site visits at four privately owned and operated construction sites within the jurisdictional boundaries of the County. The site visits were conducted during or immediately after a significant precipitation event. (See Introduction section of this report for precipitation totals.)

The purpose of the site visits was to assess the County's oversight activities for construction sites. Because of their relevance to the County's obligations under its MS4 permit, summary observations pertaining to the site visit to the Shipley Farm Project are presented below. Specifically, this site visit was included in this inspection report because BMPs were not installed in accordance with the approved erosion and sediment control (ESC) plan. All referenced photographs are contained in Appendix C, Photograph Log.

### **Observation 2. Erosion and Sediment Control - Shipley Farm Project**

The Shipley Farm project (Grading Permit No. 23399-2010-02) is located at 2304 Dressage Court, Largo, Maryland. This project consists of development of the site for single-family homes. At the time of the inspection, the site was in the rough grading phase, and clearing and grading were under way. According to a topographic map included in ArcGIS Explorer (a map-viewing computer program), Collington Branch is approximately 0.50 mile to the east, and Western Branch Patuxent River is approximately 1.1 miles to the west of the construction site. The EPA Inspection Team observed the following with regard to erosion and sediment controls at this private construction site:

- The baffle boards present in Sediment Trap #1 were not installed in accordance with the approved ESC plan. Specifically, the baffle board was not extended into the embankment of the sediment trap (see Appendix C, Photographs 1 and 2). Turbid flow was observed discharging from Sediment Trap #1 and flowing into a drainage ditch along Town Farm Road (see Appendix C, Photographs 3 through 5). Sheet Nos. 8 and 9 of the County-approved Shipley Farm ESC Plan specify that the baffle board is to be extended into the northern embankment (see Appendix B, Exhibit 1). Furthermore, COMAR 26.17.01.09.D(1) requires the County to “ensure that approved erosion and sediment control plans...are complied with.”

- Swale A-2, which was implemented along the southwest perimeter of the site to direct flow to Sediment Trap #3, was not installed in accordance with the approved ESC plan. Specifically, un-compacted fill was used along the earthen berm of Swale A-2 (see Appendix C, Photographs 6 and 7). The earthen berm had breached in two separate locations, and turbid flow was observed discharging from the site and flowing to the southwest (see Appendix C, Photographs 7 through 10). Sheet Nos. 5 and 9 of the County-approved Shipley Farm ESC Plan specify that “fill, if necessary, shall be compacted by earth moving equipment (see Appendix B, Exhibit 1). Furthermore, COMAR 26.17.01.09.D(1) requires the County to “ensure that approved erosion and sediment control plans...are complied with.”
- The baffle boards present in Sediment Trap #3 were not installed in accordance with the approved ESC plan. Specifically, the baffle boards were not extended into the respective embankment of the sediment trap (see Appendix C, Photographs 11 through 13). Turbid flow was observed discharging from Sediment Trap #3 and flowing to the southeast (see Appendix C, Photographs 14 through 18). Sheet Nos. 8 and 9 of the County-approved Shipley Farm ESC Plan specify that the baffle boards are to be extended into their respective embankment (see Appendix B, Exhibit 1). Furthermore, COMAR 26.17.01.09.D(1) requires the County to “ensure that approved erosion and sediment control plans...are complied with.”
- On April 6, 2011, the County provided correspondence to the EPA Inspection Team indicating that the construction site operator had undertaken a number of corrective actions to address the observations noted above, including the installation of flocculant applicators at Sediment Traps #1 and #3 to assist in reducing the effluent turbidity (see Appendix B, Exhibit 2).

### **Observation 3.        Erosion and Sediment Control Inspection Frequency**

Part III.E.2 of the Permit requires the County to maintain an acceptable erosion and sediment control program in accordance with the Environment Article, Title 4, Subtitle 1, *Annotated Code of Maryland*. COMAR 26.17.01.09.D(2) requires the County to “ensure that every active site having a designed erosion and sediment control plan is inspected for compliance with the approved plan *on the average of* once every 2 weeks [emphasis added].”

For the period between July 1, 2010, and December 31, 2010, the County’s self-audit documents (see Appendix B, Exhibit 3) indicate the following: (1) only 64.38 percent of the required inspections were completed in District 1; (2) 58.20 percent of the required inspections were completed in District 2; (3) 42.70 percent of the required inspections were completed in District 3; (4) 30.00 percent of the required inspections were completed in District 4; (5) 60.24 percent of the required inspections were completed in District 5 North; and (6) 78.74 percent of the required inspections were completed in District 5 South.

The EPA Inspection Team reviewed the County's inspection records for the previous year for three of the four construction sites visited on March 10–11, 2011. The team observed the following:

At the Westphalia Row project (Grading Permit No. 16307-2009), there was one instance between September 20, 2010 and February 17, 2011, where inspections were not conducted once every 2 weeks. The gap between inspections was 29 days, between December 6, 2010, and January 5, 2011.

At the Ritchie Station Marketplace project (Grading Permit No. 9087-2005), there were four instances between February 23, 2010, and March 8, 2011, where inspections were not conducted once every 2 weeks. The largest gap between inspections was 37 days, between June 8, 2010, and July 16, 2010.

At the Shipley Farm project (Grading Permit No. 23399-2010-02), inspections were conducted once every 2 weeks between November 1, 2010 and February 3, 2011.

#### **Observation 4.        Erosion and Sediment Control Enforcement**

Part III.E.2 of the Permit requires the County to maintain an acceptable ESC program in accordance with the Environment Article, Title 4, Subtitle 1, *Annotated Code of Maryland*. COMAR 26.17.01.09.E(1) states “if a violation persists after the date specified in the notice of violation, the enforcement agency [the County] shall stop work on the site.”

Although the County Building Code contains general information pertaining to enforcement escalation, the County had not developed written enforcement procedures such as an enforcement response plan or guide.

The EPA Inspection Team reviewed the County's inspection records and enforcement actions for the previous year for three of the four construction sites visited on March 10–11, 2011. The team observed that the County's enforcement efforts were not systematic and uniformly applied. At the Ritchie Station Marketplace project (Grading Permit No. 9087-2005), for example, there were recurring instances of code noncompliance that were not corrected in a timely manner using progressive escalation of the County's enforcement capabilities. The following is a brief chronology of the events pertaining to this issue.

- In a December 14, 2009, inspection report, a County construction inspector stated: “[C]itation was issued for \$500.00 for non-compliance of stabilization and sediment leaving site at main entrance way...install SCE [stabilized construction entrance] within 24 hr. of date issued 12-14-09.” Based on the records provided to the EPA Inspection Team, the site was not inspected again until January 6, 2010, at which time the County construction inspector indicated that the stabilization and construction entrance items in the December 14, 2009, inspection report had been satisfied (see Appendix B, Exhibit 4).

- In a January 20, 2010, inspection report, a County construction inspector stated: “Install SCE [stabilized construction entrance] at main entrance way, \$250.00 civil citation from sediment leaving site.” This inspection report indicates that a notice of violation was issued with a required corrective action date that same day, January 20, 2010. The site was inspected again on January 22 and 28, 2010, with no indication that corrective action had been obtained (see Appendix B, Exhibit 5). Based on the records provided to the EPA Inspection Team, the next inspection did not occur until February 23, 2010.
- In the February 23, 2010, inspection report, a County construction inspector stated: “Install SCE [stabilized construction entrance] at main entrance way per plans and specs [specifications]....citation of \$1000.00 was issued for sediment leaving site, refuse to sign citation book.” Although this was a repeat violation that persisted after the date specified in the notice of violation (January 20, 2010), the County did not issue a stop work order as required by COMAR 26.17.01.09.E(1) (see Appendix B, Exhibit 6). Subsequent inspection records indicate that the stabilization and construction entrance issues continued to persist, and a stop work order was not issued until March 9, 2010 (see Appendix B, Exhibit 6).

It should be noted that MDE identified similar issues with the County's enforcement practices during annual ESC reviews conducted in 2008 and 2009. This and other content in the County inspection records and enforcement actions indicate that guidelines are needed to direct timely corrective actions. (See Appendix E, Observation 4 for a recommendation pertaining to this issue.)

### ***Section C. Illicit Discharge Detection and Elimination***

Part III.E.3 of the Permit, *Illicit Discharge Detection and Elimination* (IDDE), requires the County to “implement an inspection and enforcement program, or other alternative methods approved by MDE, to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated.”

#### **Observation 5. Surveys of Commercial and Industrial Watersheds**

Part III.E.3.b of the Permit requires the County to conduct “routine surveys of commercial and industrial watersheds for discovering and eliminating pollutant sources.”

The EPA Inspection Team formally requested “records (i.e., completed checklists) for commercial and industrial surveys (most recent Reporting Year)” (see Appendix B, Exhibit 7, Item 16), but the County did not provide the requested records. The County Water Quality and Compliance (WQ&C) Team Supervisor explained that the County had not conducted routine surveys of commercial and industrial watersheds; therefore, no records were available. Accordingly, the County did not report any commercial and industrial survey activities in its 2009 Annual Report.

The County WQ&C Team Supervisor indicated that, due to staffing cutbacks, the County now had only one water quality inspector for illicit discharge detection and elimination activities; therefore, the commercial and industrial surveys were not a requirement on which the County had focused.

#### **Observation 6. IDDE Enforcement Procedures**

Part III.E.3.d of the Permit requires the County to use “appropriate enforcement procedures for investigating and eliminating illicit discharges, illegal dumping, and spills. Significant discharges shall be reported to MDE for enforcement and/or permitting.”

The EPA Inspection Team formally requested “IDDE enforcement procedures (i.e., enforcement response plan)” (see Appendix B, Exhibit 7, Item 19). In response, the County provided a draft enforcement response guide titled *NPDES Enforcement Guide: Water Quality and Stormwater Management Programs*, dated June 2008. The guide states that “the Environmental Services Division, Department of Environmental Resources prepared this Enforcement Guide to establish an enforcement policy overseeing a NPDES Investigation, Inspection, and Enforcement Program....” The County WQ&C Team Supervisor explained that the enforcement response guide was intended for use by the WQ&C Team but had not been approved for their use.

The members of the WQ&C Team act as first responders to certain water quality complaints; however, they are not granted the authority to directly issue notices of

violation or stop orders. Instead, the inspector and other WQ&C Team staff must initiate enforcement through other departments, such as the Public Works & Transportation, Health, or Zoning departments, which have enforcement capabilities.

The County's *Standard Procedures: Complaint Data Entry and Tracking, NPDES Illicit Discharge Detection and Elimination*, dated July 2009, states that "water quality protection is achieved when (1) the WQ&C Team secures voluntary compliance, or (2) whenever a complaint is referred to another agency with the authority to enforce County Code designed to protect human health and welfare" (see [Appendix B, Exhibit 8](#)). The County WQ&C Team Program Manager and Water Quality Inspector explained that once a complaint is referred to another department (e.g., DPW&T or Zoning), it is the other department's responsibility to obtain corrective action. Under this approach, the County WQ&C Team does not track referrals through resolution; therefore, the team is not ensuring that illicit connections/discharges are eliminated as specified in Part III.E.3 of the Permit. Complaint ID No. 074 in the County's Water Quality Complaints database, for example, shows an instance where an illegal car wash was identified and referred to the Zoning department, but resolution of the issue is not demonstrated (see [Appendix B, Exhibit 9](#)). This example indicates that guidelines are needed to ensure that illicit connections/ discharges are eliminated. ([See Appendix E, Observation 6 for a recommendation pertaining to this issue.](#))

### ***Section D. County Property Management and Road Maintenance***

Part III.E.5 of the Permit requires the County to “identify all County-owned facilities requiring NPDES stormwater general permit coverage and submit Notices of Intent (NOI) to MDE for each. The status of pollution prevention plan development and implementation shall be submitted annually.”

The County reported in its 2009 Annual Report that eight County-owned facilities had been identified as having obtained coverage under the *MDE NPDES General Discharge Permit for Stormwater Associated with Industrial Activities*, No. 02-SW (hereinafter, the Industrial General Permit), effective December 1, 2002. A County representative stated during the inspection that in 2003 or 2004, the County had compiled a list of 242 County-owned facilities and had reviewed the list in an effort to identify all facilities that would need coverage under the Industrial General Permit. During the inspection, however, another County-owned facility was found to also have coverage under the Industrial General Permit, making a total of nine County-owned facilities with coverage. Additional details are provided below under the County property management site visits.

#### **D.1. County Property Management Site Visits**

On March 10–11, 2011, the EPA Inspection Team conducted three site visits at County-owned facilities and municipal activities within the County. The purposes of the site visits were to document site conditions and to assess the County’s oversight activities for County properties. Summary observations pertaining to these three sites are presented below. All referenced photographs are contained in Appendix C, Photograph Log.

#### **Observation 7. County Property Management - Central Vehicle Maintenance Facility**

The Prince George’s County Central Vehicle Maintenance Facility is located at 8019 Central Avenue, Capitol Heights, Maryland. The Central Vehicle Maintenance Facility is used for various County-wide activities associated with the County’s MS4, including (1) vehicle maintenance (including mechanical repairs and lubrication) and (2) vehicle and equipment storage (including vehicles awaiting repair). The facility consisted primarily of a large building with administrative offices, materials storage (i.e., automobile parts and fluids), and maintenance bays. The building was surrounded by paved parking areas used for employee vehicles (northwestern and western portions of the property), County-owned vehicles in need of maintenance, and vehicles that had recently received maintenance (remaining parking areas surrounding the building).

Surface waters in the vicinity include Ritchie Branch, located approximately 0.30 mile to the south of the facility, and a tributary to Ritchie Branch that is directly adjacent to the facility along the western side of the property.

Drainage from the property flowed via sheet flow or through stormwater drainage conveyances to an outfall on the western portion of the property or to an oil/water separator on the southern portion of the property. The stormwater outfall on the western portion appeared to receive drainage primarily from the employee parking area, and it discharged stormwater directly to an unnamed tributary of Ritchie Branch. Stormwater from the County-owned vehicle parking areas appeared to drain to the oil/water separator and then to an unmaintained stormwater management pond located outside the facility's fence line, and subsequently to the unnamed tributary of Ritchie Branch.

Part IV.B.2 of the Industrial General Permit requires that a SWPPP be completed and implemented prior to submitting an NOI. The Fleet Administrator stated that a Notice of Intent (NOI) had been submitted to MDE in April, 2010, to obtain Industrial General Permit coverage for the facility, but that a Stormwater Pollution Prevention Plan (SWPPP) had not yet been developed. The Fleet Administrator indicated that they had not been notified of their permit coverage status and that he was not aware that development of a SWPPP was required prior to submitting the NOI. The EPA Inspection Team reviewed the Central Vehicle Maintenance Facility files and found that the facility had received Industrial General Permit coverage under Registration No. 02SW2173 on May 12, 2010, as indicated in a letter from MDE to the Fleet Administrator (see Appendix B, Exhibit 10).

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility:

- Ponding was present around the oil/water separator, causing stormwater to bypass the separator (see Appendix C, Photographs 19 and 20). It appeared that the oil/water separator was clogged and was not functioning properly. The Fleet Maintenance Administrator stated that a specific maintenance program for the oil/water separator had not been developed, and he could not recall the last time the oil/water separator had been cleaned or maintained. Part IV.C.2.a of the Industrial General Permit states that the SWPPP must include “[a] preventative maintenance program that involves timely inspection and maintenance of stormwater management devices (cleaning oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.”
- Erosion was present along the southern property line of the facility. The EPA Inspection Team observed erosion directly adjacent to the oil/water separator. It appeared that ponding at the oil/water separator was causing stormwater to flow around the separator, resulting in erosion adjacent to it (see Appendix C, Photographs 21 and 22). Part IV.C.2.a of the Industrial General Permit states that the SWPPP must include “[a] preventative maintenance program that involves timely inspection and maintenance of stormwater management devices (cleaning oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.”



- Erosion was present along the southern property line of the facility. The EPA Inspection Team observed water flowing over the curb along the western boundary of the property, causing erosion down the slope of the property due to a clogged storm drain (see Appendix C, Photograph 23). Ponding along the curb, as well as a crack in the curb, appeared to allow stormwater to flow over the curb and cause erosion down the slope of the property. Part IV.C.2.d of the Industrial General Permit states that “[t]he plan shall prevent sediment and erosion by identifying areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identifying measures to limit erosion.”
- The stormwater pond on the southern side of the facility appeared to have an irregular shape with shallow slopes and no visible perimeter around the pond. The Fleet Administrator indicated that the stormwater pond had not been regularly maintained. As a result, the EPA Inspection Team observed sediment and debris accumulation in the pond (see Appendix C, Photograph 24). The County’s Pollution Prevention (P2) Coordinator indicated that this structure is on the list for maintenance and repairs later in 2011 as part of a capital improvement project to return the pond to a properly functioning stormwater management pond. Part IV.C.2.a of the Industrial General Permit states that the SWPPP must include “[a] preventative maintenance program that involves timely inspection and maintenance of stormwater management devices (cleaning oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.”
- The facility is used to store vehicles requiring repairs in parking lots on the northern, eastern, and southern areas of the property. Vehicles with both mechanical and cosmetic damage are stored uncovered outside the maintenance shop on an impervious surface. The Fleet Administrator indicated that the southern and eastern parking lots are for short-term vehicle storage only. The Fleet Administrator also indicated that there are no specific BMPs or procedures in place for the short-term storage of these vehicles, including but not limited to drip pans under vehicles, storage of vehicles with closed engine hoods, location in proximity to storm drains, and periodic inspections. As a result the EPA Inspection Team observed vehicles left resting directly on an impervious surface, as well as vehicle engines and parts left exposed (see Appendix C, Photographs 25 and 26). In addition, no procedures were in place to check for fluid leaks from the vehicles in the short-term storage. The EPA Inspection Team observed that a sheen was present on the stormwater flowing into the storm drain adjacent to stored vehicles in the southeast portion of the property (see Appendix C, Photographs 27 and 28). Part IV. C.2.b of the Industrial General Permit states that the SWPPP must include “[g]ood housekeeping that requires the maintenance of a clean and orderly facility.”
- General vehicle related parts were stored and left exposed outside the maintenance shop. Specifically, the EPA Inspection Team observed a scrap iron and steel bin left exposed outside the maintenance shop on the southern side of the facility (see Appendix C, Photograph 29), and rusted metal parts were observed exposed and stored directly over a storm drain inlet in the northeastern

portion of the facility (see [Appendix C, Photograph 30](#)). Part IV. C.2.b of the Industrial General Permit states that the SWPPP must include “[g]ood housekeeping that requires the maintenance of a clean and orderly facility.”

#### **Observation 8. County Property Management - Ritchie Service Facility**

The Prince George's County Ritchie Service Facility is located at 8400 D'Arcy Road, District Heights, Maryland. The Ritchie Service Facility is the primary staging and support area for the Prince George's DPW&T. Facility operations include the following: (1) storing and loading sand-salt mixture for road deicing; (2) storing, maintaining, and cleaning of the DPW&T fleet; (3) preparation of traffic signs; (4) road painting; and (5) materials storage. The facility consisted of a northern portion and a southern portion, with D'Arcy Road bisecting the property. The northern portion of the facility consisted of a large building with offices, road debris storage, various sheds used for materials storage, parking lots, a salt dome, paint shops, a sign shop, and a materials laboratory. According to the facility's SWPPP, the southern portion consists of a fueling station, parking lots, a washbay, and offices. The southern portion of the facility, located on the opposite side of D'Arcy Road, is shared with a County municipal contractor, Veolia Transport. The southern portion of the facility was not viewed as part of the site visit because of the large size of the facility. Therefore, all observations are in relation to the northern portion of the facility, and the directions noted below are in reference only to the northern portion of the facility.

Ritchie Branch, a nearby surface water, is located approximately 0.2 mile from the facility property and runs along the western boundary of the facility.

The northern portion of the facility has a total of five outfalls, two of which appear to be internal outfalls. Outfall A, in the northeast portion of the facility, receives drainages from the bioretention structure, which receives drainages from the wash rack area. Outfalls B and C, in the northwestern portion of the facility, are internal outfalls that drain to Outfall D, also located in the northwest portion of the facility. Outfall D subsequently drains to Ritchie Branch. Outfalls B and C receive drainage primarily from the waste stockpile area, the salt dome, the materials storage area, and employee and equipment parking areas. Outfall E, on the eastern side of the facility, drains directly to Ritchie Branch; Outfall E appears to receive drainage from the office buildings and a portion of the sand storage area (see [Appendix B, Exhibit 11](#)).

The EPA Inspection Team reviewed the MDE Permitted Facilities Inventory and confirmed that the Ritchie Service Facility had Industrial General Permit coverage under Registration No. 02SW0521. The facility's SWPPP was also viewed as a component of the site visit.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility:

- Significant erosion was present along the western side of the facility. Trash and debris that are found and collected along County roadways or in storm drains are stored temporarily in large stockpiles on the western side of the facility (see Appendix C, Photographs 31 and 32). The Associate Director for Highway Maintenance indicated that a company is hired to sort and remove the trash and debris on a regular basis. Receipts of these transactions were provided to the EPA Inspection Team and indicate that Brandywine Sand and Gravel Company removes the trash and debris on a monthly basis between June and October every year. During the inspection, the EPA Inspection Team observed an excessive amount of trash and debris at the facility, as well as erosion from the trash and debris stockpiles, with trash such as plastic bottles observed leaving the site and draining to Outfall C (see Appendix C, Photographs 33 and 34). Part IV.C.2.b of the Industrial General Permit requires that the SWPPP include “[g]ood housekeeping that requires the maintenance of a clean, orderly facility.” Part IV.C.2.d of the Industrial General Permit states that “[t]he plan shall prevent sediment and erosion by identifying areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identifying measures to limit erosion.”
- In addition, sand was stored in multiple piles along the southwestern edge of the northern portion of the facility; the piles were outside, and some had been left uncovered. The EPA Inspection Team observed a mixture of stormwater and sand leaving the storage area directly adjacent to one of the sand piles through eroded channels (see Appendix C, Photographs 35 and 36). Part IV.C.2.b of the Industrial General Permit requires that the SWPPP include “[g]ood housekeeping that requires the maintenance of a clean, orderly facility.” Part IV.C.2.d of the Industrial General Permit states: “The plan shall prevent sediment and erosion by identifying areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identifying measures to limit erosion.”
- The EPA Inspection Team also observed significant erosion in the northwest portion of the facility. Stormwater was observed flowing at a high velocity from the vehicle storage area through an eroded channel. The stormwater left the facility under the fence line and flowed down an approximately 15-foot cliff, discharging to Ritchie Branch through Outfall B (see Appendix C, Photograph 37). Part IV.C.2.d of the Industrial General Permit states: “The plan shall prevent sediment and erosion by identifying areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion, and identifying measures to limit erosion.”
- Multiple roadway materials stockpiles were stored along the southwestern portion of the facility, and some did not have overhead coverage or containment. The EPA Inspection Team observed a storm drain directly adjacent to several of the stockpiles, and the storm drain was filled with sand and leaves (see Appendix C, Photographs 38 and 39). Hay bales, however, had been placed around one side of the storm drain as a BMP. Part IV.C.2.b of the Industrial General Permit requires that the SWPPP include “[g]ood housekeeping that requires the maintenance of a clean, orderly facility.” In addition, Part IV.C.2.e of the Industrial General Permit requires that “[t]he plan shall contain a narrative consideration of the

- appropriateness of traditional stormwater management practices (practices other than those which control the generation or source(s) of pollutants) used to divert, infiltrate, reuse, or otherwise manage stormwater runoff in a manner that reduces pollutants in stormwater discharges from the site. The plan shall provide that measures determined to be reasonable and appropriate shall be implemented and maintained.”
- A wash rack for vehicle and truck washing was located in the northeast portion of the facility. Although the EPA Inspection Team did not observe any washing at the time of the inspection, the facility representative indicated that washing is conducted in the area. He also stated that washing is typically done with a high-pressure hose, usually with water only but occasionally with soap and water. Wash water drains to a bioretention structure before draining to a storm drain that discharges to Ritchie Branch through Outfall A (see Appendix C, Photograph 40). The facility representative also indicated that the bioretention structure had been installed approximately three years ago. It undergoes cleaning every spring and fall, and general routine maintenance takes place between cleanings. The discharge of wash water is not specifically authorized by the Industrial General Permit. In addition, the facility's SWPPP, under BMP 3 “Vehicle and Equipment Washing, Cleaning, and Degreasing,” specifies that as a structural control “[a]ny connection to stormwater drainage system will be blocked to prevent discharge to the storm drainage system during washing activities by facilitating the collection of wash water.” The facility's SWPPP was last updated in January 2009, but it does not mention the addition of the bioretention structure, nor does it mention the use of a bioretention structure as a BMP for addressing wash water. Part III.E.4 of the County's MS4 Permit requires the County to “maintain its illicit connection detection and elimination program to ensure that all discharges to and from the municipal separate storm sewer system that are not composed entirely of stormwater are either permitted by MDE or eliminated.” Furthermore, The EPA Inspection Team observed stormwater drainage flowing along the curb around the bioretention structure and directly into the storm drain (see Appendix C, Photograph 41). Wash water from the wash rack could follow the same drainage pattern around the bioretention structure and directly into the storm drain instead of flowing through the structure as designed.
  - There is a stormwater management control structure around the salt storage dome in the central portion of the facility (see Appendix C, Photograph 42). The control structure is not described in the facility's SWPPP, and the facility representative did not know whether any maintenance had been performed on the structure. Part IV.C.2 of the Industrial General Permit specifies that “[e]ach facility covered by this permit shall develop a description of stormwater management controls appropriate for the facility, and implement such controls. The appropriateness and priorities of controls in a plan shall reflect identified potential sources of pollutants at the facility.” In addition, Part IV.C.2.a of the Industrial General Permit specifies that the SWPPP must include “[a] preventative maintenance program that involves timely inspection and maintenance of stormwater management devices (cleaning oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions

that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.” The EPA Inspection Team also observed what appeared to be a 5-gallon gasoline container and salt in the control structure (see Appendix C, Photograph 43). Part IV.C.2.b of the Industrial General Permit specifies that the SWPPP must include “[g]ood housekeeping that requires the maintenance of a clean, orderly facility.”

#### **Observation 9. County Property Management - Materials Recycling Facility**

The Prince George's County Materials Recycling Facility is located at 1000 Ritchie Road, Capitol Heights, Maryland. The Materials Recycling Facility (MRF) is a materials recycling and recovery facility owned by DER and operated by Waste Management Recycle America. The facility operates a single-stream collection of recyclable materials to accommodate the segregation of recyclables into different waste streams (paper, glass, aluminum, plastic, etc.).

Drainage from the property flowed via sheet flow or to stormwater drainage conveyances to an oil/water separator in the visitor and employee parking area in the northwestern portion of the property. The oil/water separator in the visitor and employee parking area appeared to receive drainage from storm drain inlets located throughout the facility, including in the truck/trailer entrance area, the employee and visitor parking lots, the recovered materials pickup area, and the equipment storage area. The oil/water separator discharges stormwater off-site via a 54-inch stormwater line to Ritchie Branch.

The EPA Inspection Team reviewed the MDE Permitted Facilities Inventory and confirmed that the MRF had Industrial General Permit coverage under Registration No. 02SW1224. The facility's SWPPP was also viewed as a component of the site visit.

The EPA Inspection Team visited the MRF and observed the implementation of BMPs such as filters over storm drains, the availability of spill kits, and general good housekeeping procedures. The District Manager indicated that housekeeping inspections are conducted monthly, as well as daily sweeping. The District Manager indicated that the oil/water separator had recently been cleaned but added that it is not currently on a maintenance schedule. The EPA Inspection Team recommended that the oil/water separator be put on a regular maintenance schedule to ensure proper functioning of the separator.

#### **Observation 10. County-owned Facilities Requiring NPDES Stormwater General Permit Coverage**

Part III.E.5 of the Permit requires the County to “identify all County-owned facilities requiring NPDES stormwater general permit coverage and submit Notices of Intent (NOI) to MDE for each.”

The County maintains a list of 242 County-owned facilities; however, County representatives stated that the list was developed in 2003 or 2004 and had not been updated since. It is unknown whether the list of County-owned properties includes all the current County-owned properties. As a result, some County-owned facilities requiring NPDES stormwater general permit coverage might not have been identified as needing Industrial General Permit coverage and therefore might not have submitted NOIs as required in Part III.E.4 of the Permit.

The County's 2009 Annual Report indicated that eight County facilities were covered under the Industrial General Permit during the 2009 reporting year—four managed by DER and four managed by DPW&T. The EPA Inspection Team reviewed the MDE Permitted Facilities Inventory and counted eight County facilities with Industrial General Permit coverage; however, the eight County facilities listed by MDE did not match the eight County facilities listed in the County's 2009 Annual Report. The Beltsville Facility was listed in the 2009 Annual Report as having Industrial General Permit coverage; however, MDE's inventory did not list the Beltsville Facility as having coverage. The Central Vehicle Maintenance Facility was listed by MDE as having Industrial General Permit coverage, but the County did not identify the facility as potentially needing permit coverage in the 2009 Annual Report. The County submitted an NOI for the facility to MDE in April 2010 and was granted permit coverage on May 10, 2010. Therefore, it is likely that the County was aware that the facility needed permit coverage and had not yet obtained it.

Furthermore, the permit registration numbers reported to MDE do not match the permit registration numbers listed in the 2009 Annual Report for the following facilities: Abandon Vehicle Impound Lot (DER), Sandy Hill Creative Disposal Project (DER), and Materials Recycling Facility (DER). Table 1 presents the County facilities with Industrial General Permit coverage.

Table 1: County Facilities with Industrial General Permit Coverage as Reported in the County's 2009 Annual Report and as Reported by MDE

<b>Name of Facility (Responsible Agency)</b>	<b>Registration No. Reported in the 2009 Annual Report</b>	<b>Registration No. Reported by MDE</b>
Abandon Vehicle Impound Lot (DER)	<b>02SW0132</b>	<b>02SW0312</b>
Sandy Hill Creative Disposal Project (DER)	<b>02SW0132</b>	<b>02SW0314</b>
Brown Station Road Landfill (DER)	02SW0401	02SW0401
Materials Recycling Facility (DER)	<b>02SW0132</b>	<b>02SW1224</b>
Ritchie Road Service Complex (DPW&T)	02SW0521	02SW0521
Brandywine Facility (DPW&T)	02SW1223	02SW1223
Glenn Dale Facility (DPW&T)	02SW1222	02SW1222
Beltsville Facility (DPW&T)	02SW1222	-- <sup>1</sup>
Central Vehicle Maintenance Facility (DPW&T)	-- <sup>2</sup>	02SW2173

<sup>1</sup> The Beltsville Facility was reported in the 2009 Annual Report as having Industrial General Permit coverage, but it was not reported by MDE as having coverage.

<sup>2</sup> The Central Vehicle Maintenance Facility was reported by MDE as having Industrial General Permit Coverage, but it was not reported in the 2009 Annual Report as having coverage.

In addition, the public school system in Prince George's County is not included on the list of County-owned facilities. County officials have the understanding that the County's schools are owned by the State of Maryland and therefore are not required to be included as a County property for the purposes of the Permit. The exclusion of Prince George's County School System property from the County-owned facility list should be further evaluated.

County-owned properties requiring permit coverage are managed by DER and DPW&T. DER has assumed an advisory role whereby it assists other County organizational divisions in understanding and complying with the requirements of the MDE Industrial General Permit. NOI submittal and SWPPP development and implementation are the direct responsibility of the organizational divisions that manage and operate the County facilities, including DER itself and DPW&T.

### ***Section E. Watershed Assessment, Planning, and Restoration***

Part III.F of the Permit, Watershed Assessment and Planning, requires the County to conduct a “systematic assessment of water quality within all of its watersheds. These watershed assessments shall include detailed water quality analyses, the identification of water quality improvement opportunities, and the development and implementation of plans to control stormwater discharges to the maximum extent practicable.”

Part III.G of the Permit, Watershed Restoration, requires the County to implement those practices identified through Watershed Assessment and Planning. “The overall goal is to maximize the water quality in a single watershed, or combination of watersheds, using efforts that are definable and the effects of which are measurable.”

As a component of this inspection, the EPA Inspection Team obtained information on (1) how the County interprets the impervious surface restoration requirement specified in Part III.G of the Permit, (2) what types of controls (e.g., structural and nonstructural) the County uses to qualify for the impervious surface restoration requirement, and (3) how the County calculates the amount of impervious surface area restored. The following is a brief narrative description of the County's accounting methods for impervious surface restoration.

#### **Observation 11. Watershed Assessment, Planning, and Restoration**

Presentation slides provided by the County WQ&C Team Program Manager indicate that the County interprets Part III.G of the Permit as requiring the County to restore 10 percent of the County's impervious surface area by the end of the Permit term in October 2009 (see [Appendix B, Exhibit 12](#)). Using geographic information system (GIS) software, the County combined 2005 data on transportation (roads, parking lots, etc.) and building footprints to calculate the total area of impervious surfaces in the County (37,578 acres). The County then removed certain excluded areas from the total to arrive at the County's impervious surface area during the 2004 to 2009 Permit term (22,020 acres). The excluded areas consist of land with rural zoning (e.g., Reserved Open Space, Open Space, Residential-Agricultural, and Residential – Estate greater than 2.0 acres); municipalities with their own stormwater management program (e.g., City of Bowie); federal and state-owned properties; local parklands; state-maintained roads; and the footprint of existing stormwater management controls. Based on these figures, the County's 10 percent impervious restoration goal during the 2004 to 2009 Permit term is 2,202 acres. More detailed information on these calculations can be found in presentation slides provided by the County WQ&C Team Program Manager (see [Appendix B, Exhibit 13](#)).

The types of controls the County uses to qualify for the impervious surface restoration requirement include the following County-owned stormwater management BMPs: detention facilities, extended detention facilities with a micropool, wet ponds/wetland systems, infiltration practices, filtration practices, and open channel systems. The County



uses a spreadsheet that is part of the Center for Watershed Protection's (CWP) Watershed Treatment Model to calculate estimated pollutant load reductions associated with the County-owned stormwater management BMPs. The spreadsheet accounts for reduced efficiency of the BMP over time based on the County's most recent maintenance inspection of the stormwater management BMP.

The County also uses its stream restoration projects to qualify for the impervious surface restoration requirement. Again the CWP spreadsheet was used to calculate estimated pollutant load reductions. The County WQ&C Team Program Manager explained that the County was very conservative in calculating the acreage of impervious area treated by its stream restoration projects. Specifically, only those impervious acres that (1) discharge directly into the limits of the stream restoration project area and/or (2) discharge through a storm drain outfall located within the limits of the stream restoration project area were counted toward the impervious surface restoration requirement.

The County WQ&C Team Program Manager explained that the County is currently not taking credit for nonstructural controls because of the difficulty in quantifying the results as a function of impervious acreage treatment. The County's nonstructural controls include its household hazardous waste program, river cleanups, community trash removal programs, and the like. However, the County WQ&C Team Supervisor indicated that the 2008–2009 reporting year was the first year that street sweeping was quantified in terms of the amount of impervious area treated. The County's 2009 Annual Report provides a description of the methodology used to calculate the pollutant load reduction for street sweeping (also see [Appendix B, Exhibit 13](#)).

## **Observation 12. Restoration of Impervious Surfaces**

Part III.G of the Permit requires the County to “implement those practices identified in Part III.F above [Watershed Assessment and Planning] to control stormwater discharges to the maximum extent practicable.” Furthermore, Part III.G of the Permit requires the County to “complete the implementation of those restoration efforts that were identified and initiated during the previous permit term to restore ten percent of the County's impervious surface area. Within one year of permit issuance [October 2005], begin to implement restoration efforts in a watershed, or combination of watersheds, to restore an additional ten percent of the County's impervious surface area.”

In other words, the Permit requires the County to restore or treat 10 percent of the County's impervious surface area during the 2004 to 2009 Permit term, which amounts to 2,202 acres of the total County land area (318,853 acres), according to the County's calculations (see [Appendix B, Exhibit 12](#)). Presentation slides provided by the County WQ&C Team Program Manager show that by the end of the Permit term in October 2009, the County had restored or provided treatment for only approximately 3.7 percent of the County's impervious surface area (see [Appendix B, Exhibit 12](#)).

## **Appendix A**

### **Inspection Schedule**

## Agenda for MS4 Program Inspection of Prince George's County, MD – March 10-11, 2011

Day	Time	Activity	
		Team 1	Team 2
Thursday March 10, 2011	9:00 am – 10:00 am	Kickoff Meeting & Program Management Overview – (Specifically: County overview; departments involved in implementing SW program; regulatory history, etc.)	
	10:00 am – 11:00am	Municipal Operations and Maintenance (Office) – County Property Management – Permit PART III.E.5  Road/ Infrastructure Maintenance (as time permits) – Permit PART III.E.6	Construction (Office) Erosion and Sediment Control – Permit PART III.E.3
	11:00 am – 12:00pm	Planning of Field Logistics for Thursday Afternoon	Construction (Field) Erosion and Sediment Control – Permit PART III.E.3
	12:00 pm – 1:00 pm	Lunch Break	
	1:00 pm – 2:30 pm	Municipal Operations (Field)	Construction (Field) Erosion and Sediment Control – Permit PART III.E.3
	2:30 pm – 4:30 pm		
	4:30 pm – 5:00 pm	Recap and Logistics Planning for Friday	
	Friday March 11, 2011	8:00 am – 9:00 am	Post-Construction (Office) BMP Maintenance Inspection – Permit Part III.E.2

## Agenda for MS4 Program Inspection of Prince George's County, MD – March 10-11, 2011

Day	Time	Activity	
		Team 1	Team 2
	9:00 am – 11:00 am	<b>Municipal Operations (Field)</b>	<b>Illicit Discharge Detection and Elimination (IDDE)/ Industrial (Office)</b> – Permit PART III.E.4  Commercial/Industrial Surveys – Permit PART III.E.4.b
	11:00 am – 12:00 pm	Lunch Break	
	12:00 pm – 1:30 pm	<b>Watershed Assessment, Planning, and Restoration (Office)</b> – Permit PART III.F and III.G	
	1:30 pm – 2:30 pm	Reserved for additional discussion or records review (as needed)	
	2:30 pm – 3:00 pm	Internal Discussion <sup>1</sup> (Tentative time slot)	
	3:00 pm – 4:00 pm	Closing Conference <sup>2</sup> (Tentative time slot)	

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<sup>1</sup> Internal Discussion – Discussion among members of the EPA Inspection Team. Goal is to compare notes and prepare information to be discussed with the County during Closing Conference. County participation is not expected.

<sup>2</sup> Closing Conference – The County is encouraged to invite representatives from all applicable organizational divisions/departments.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

In the Matter of:

Prince George's County, Maryland  
14741 Governor Oden Bowie Drive  
Upper Marlboro, MD 20772

Respondent

ADMINISTRATIVE ORDER FOR  
COMPLIANCE ON CONSENT

Docket No. CWA-03-2013-0211DN

REGIONAL HEARING CLERK  
EPA REGION III, PHILA. PA

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**I. STATUTORY AUTHORITY**

1. This Administrative Order for Compliance on Consent is issued under the authority vested in the Administrator of the United States Environmental Protection Agency (hereinafter "EPA") under Section 309(a) of the Clean Water Act ("CWA" or "the Act"), 33 U.S.C. § 1319(a). This authority has been delegated by the Administrator to the Regional Administrator of EPA Region III, who has further delegated the authority to the Director of the Water Protection Division of Region III.

**II. STATUTORY AND REGULATORY BACKGROUND**

2. Section 301(a) of the Act, 33 U.S.C. § 1311(a), prohibits the discharge of any pollutant (other than dredged or fill material) from a point source into waters of the United States except in compliance with a permit issued pursuant to the National Pollutant Discharge Elimination System ("NPDES") program under Section 402 of the Act, 33 U.S.C. § 1342.

3. Section 402(a) of the Act, 33 U.S.C. § 1342(a), provides that the Administrator of EPA may issue permits under the NPDES program for the discharge of pollutants from point sources to waters of the United States. The discharges are subject to specific terms and conditions as prescribed in the permit. Section 402(b) of the Act provides for the authorization of state programs to issue NPDES permits.

4. "Discharge of a pollutant" includes "any addition of any pollutant or combination of pollutants to waters of the United States from any point source." 40 C.F.R. § 122.2.



5. "Storm water" is defined as "storm water runoff, snow melt runoff and surface runoff and drainage." 40 C.F.R. § 122.26(b)(13).

6. The term "municipal separate storm sewer system" ("MS4") includes, "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States." 40 C.F.R. § 122.26(b)(8)(i).

7. An NPDES permit is required for discharges from an MS4 serving a population of 100,000 or more, Section 402(p)(2)(C) of the Act, 33 U.S.C. § 1342(p); 40 C.F.R. § 122.26(a), 40 C.F.R. § 122.21.

8. An NPDES permit is also required for discharges of storm water associated with industrial activity, as well as for stormwater discharges which MDE or EPA determine to be a significant contributor of pollutants or that contributes to a violation of a water quality standard. Section 402(p)(2) of the Act, 33 U.S.C. § 1342(p)(2); 40 C.F.R. § 122.26(a), 40 C.F.R. § 122.21.

### **III. FINDINGS OF FACT AND CONCLUSIONS OF LAW**

9. Prince George's County, Maryland ("Respondent" or "County") is a person within the meaning of Section 502(5) of the Act, 33 U.S.C. § 1362(5).

10. At all times relevant to this Complaint, Respondent has owned and/or operated a municipal separate storm sewer system ("MS4") as that term is defined in 40 C.F.R. § 122.26(b)(8).

11. Respondent's MS4 is located within the geographic boundaries of the County.

12. The County encompasses a total area of approximately 498 square miles. According to the U.S. Census Bureau, as of 2010, the county's population was approximately 863,000 people.

13. Respondent's MS4 serves a population of at least 100,000 people

14. Stormwater from the County drains to a number of water bodies, primarily the Potomac River and the Patuxent River, which are considered "waters of the United States" within the meaning of Section 502(7) of the Act, 33 U.S.C. § 1362(7); 40 C.F.R. § 232.2; 40 C.F.R. § 122.2.

15. Pursuant to Section 402(b) of the Act, 33 U.S.C. § 1342(b), EPA authorized the Maryland Department of the Environment ("MDE") to issue NPDES permits on September 5, 1974.

16. MDE issued to Respondent NPDES MS4 Discharge Permit No. 99-DP-3314 (hereinafter the MS4 Permit), effective October 13, 2004, for its MS4 discharges. The MS4 Permit expired on October 13, 2009 but was administratively extended. MDE has proposed to renew the County's MS4 NPDES permit with similar requirements as the 2004 MS4 Permit

17. On December 1, 2002 MDE issued a General Discharge Permit for Storm Water Associated with Industrial Activities (General Industrial SW Permit). The permit also covers storm water discharges determined to be significant contributor of pollutants. The permit was set to expire on November 30, 2007, but it has been administratively extended.

18. On March 10 - 11, 2011, a compliance inspection team comprised of EPA and authorized representatives of EPA inspected Respondent's MS4 program (the "MS4 Inspection"). The team also inspected several county facilities which discharge storm water and are subject to the requirements of the General Industrial SW Permit.

19. The MS4 Inspection identified a number of violations of Respondent's NPDES permit and the CWA as described below.

### **III. FINDINGS OF VIOLATION**

#### **Count I: Failure to Inspect Stormwater Management Facilities**

20. Part III.E.1.a of the MS4 Permit requires that the County conduct preventative maintenance inspections of all environmental site designs and structural management facilities at least on a triennial basis.

21. The County has identified over 1300 stormwater management facilities – 582 designated as private and 790 designated as public. During the MS4 inspection, the County documented that the County had inspected 327 private facilities and 350 public facilities in the preceding three years.

22. Respondent's failure to inspect all storm water management facilities in a three-year period is a violation of the MS4 Permit and Section 301 of the Act, 33 U.S.C. § 1311.

#### **Count II: Failure to Maintain an Acceptable Erosion and Sedimentation Control Program and to Implement Program Improvements Identified by MDE**

23. Part III.E.2 of the MS4 Permit requires that the County maintain an acceptable erosion and sedimentation control program (E&S Program). At a minimum, the County must implement any program improvements identified in any MDE evaluation of the E&S Program.

24. MDE reviewed the County's E&S Program in 2008, 2009, and 2010. During those reviews, MDE found that the County's E&S Program lacked clear policies and procedures for enforcement, including timeframes for corrective actions; that the County did not initiate enforcement actions promptly or failed to escalate enforcement responses when faced with continuous noncompliance; and that the County prematurely lifted stop work orders prior to obtain full compliance.

25. Respondent's failure to maintain an acceptable E&S Program and to implement improvements identified by MD is a violation of the MS4 Permit and Section 301 of the Act, 33 U.S.C. § 1311.

### **Count III: Failure to Conduct Routine Surveys of Commercial and industrial Watersheds**

26. Part III.E.3.b of the MS4 Permit requires that the County conduct routine surveys of commercial watersheds in order to discover and eliminate pollutant sources, as part of the an illicit discharge detection and elimination program.

27. During the March 2011, the County reported to the inspectors that the County had not conducted the required routine surveys. Accordingly the County had no record of such surveys.

28. Respondent's failure to conduct routine surveys of industrial and commercial watersheds is a violation of the MS4 Permit and Section 301 of the Act, 33 U.S.C. § 1311.

### **Count IV: Failure to Develop Pollution Prevention Plan**

29. Part III.E.4 of the MS4 Permit requires that the County submit an application for all County-owned facilities requiring NPDES stormwater permit coverage. The County must report on the status of pollution prevention plan development for these facilities.

30. On May 12, 2010, MDE authorized coverage under the General Industrial SW Permit for the stormwater discharges of the County's Central Vehicle Maintenance Facility in Capitol Heights, Maryland, a determination that such discharges can be significant contributors of pollutants. The registration number for this facility is 02SW2173.

31. The General Industrial SW Permit requires the permittee to develop and implement a storm water pollution prevention plan (SWPPP) that includes a description of potential sources of pollutants and stormwater management controls appropriate for the facility.

32. As of the date of the inspection in March 2011, the County has not developed and implemented a SWPPP for the Central Vehicle Maintenance Facility.

33. Respondent's failure to develop and implement SWPPPs for this facility is a violation of the General Industrial SW Permit and and Section 301 of the Act, 33 U.S.C. § 1311.

### **Count V: Failure to Implement Pollution Prevention Plan**

34. Part III.E.4 of the MS4 Permit requires that the County submit an application for all County-owned facilities requiring NPDES stormwater permit coverage. The County must report on the status of pollution prevention plan development for these facilities.

35. On April 1, 1998, MDE first authorized coverage under an NPDES general permit for the stormwater discharges associated with industrial activities from the County's Ritchie Service Facility in District Heights Maryland, a determination that such discharges can be significant contributors of pollutants. The registration number for this facility in 1997 was 97-SW-0521.



Maryland continue to authorize coverage for this facility under the 2002 General Industrial SW Permit, registration number is 02SW0521.

36. The General Industrial SW Permit requires the permittee to develop and implement a storm water pollution prevention plan (SWPPP). The SWPPP must include timely maintenance of storm water management devices and good housekeeping, and must prevent erosion.

37. During the inspection of the County's Ritchie Service Facility, the inspectors observed trash and debris in the drainage from the facility. They also observed a mixture of stormwater and sand from uncovered sand piles, leaving the site through eroded channels.

38. Respondent's failure to implement the SWPPP at this facility is a violation of the General Industrial SW Permit and Section 301 of the Act, 33 U.S.C. § 1311.

#### IV. ORDER AND REQUEST

AND NOW, this \_\_\_\_\_ day of \_\_\_\_\_, 2013, Respondent is hereby ORDERED, pursuant to Section 309(a) of the Act, 33 U.S.C. § 1319(a), to do the following:

39. Within fourteen (14) days of the effective date of this Order, Respondent shall submit to EPA certification of Respondent's intent to comply with this Order. A responsible official must sign on behalf of the Respondent. The certification shall be submitted to:

Mr. Peter Gold (3WP42)  
U.S. EPA, Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

40. Respondent shall comply with its MS4 Permit, and the Industrial SW Permit where it applies. In order to assure compliance with its permits, Respondent shall implement the following measures within six (6) months of the effective date of this Order:

- a. Create and maintain an accurate inventory of the public stormwater management facilities, including infiltration devices, and assure that those facilities are included in the inspection and maintenance schedule.
- b. Document all preventive maintenance inspections of public and private stormwater management facilities.
- c. Allocate appropriate resources and personnel to conduct preventative maintenance inspections of public and private stormwater management facilities.
- d. Properly document any maintenance conducted on public stormwater management facilities.
- e. Maintain and implement an acceptable erosion and sedimentation control program that includes, among others, the following measures:

- i. Development and implementation of procedures for escalating enforcement response in the case of persistent noncompliance;
  - ii. Development and implementation of procedures for assuring compliance with erosion and sediment controls on County projects;
  - iii. Enforcement of construction specifications for erosion and sedimentation control devices in construction sites;
  - iv. Coordination of preconstruction meetings with developers/project manager to outline the erosion and sedimentation control requirements and the sequence of construction; and
  - v. Training for sediment control inspection personnel.
- f. Implement routine surveys of commercial and industrial watersheds, including outfall surveying and sampling.
- g. Assure that all facilities covered by the General Industrial SW Permit have developed and are implementing a SWPPP, which must include, among others, provisions for preventative maintenance, good housekeeping, inspections and documentation of such inspections, implementation of sedimentation controls, spill response procedures and equipment, and procedures and controls to prevent non-stormwater discharges such as car wash water from reaching storm drains without proper controls. Respondent must also make sure that the SWPPPs for its facilities covered by the General Industrial SW Permit accurately identify the stormwater controls located at the facility.

41. By December 15, 2014, in order to further compliance with the watershed restoration requirements of the MS4 Permit, Respondent will complete a pilot project consisting of 11 (eleven) green street projects implementing best management practices (BMPs) for controlling and treating stormwater runoff, as described in Larry Coffman's (Prince George's County, Deputy Director of the Department of Environmental Resources) Technical Memorandum to Nina Rivera (EPA Assistant Regional Council), dated April 1, 2013. The project will treat stormwater runoff from a minimum drainage area of 20 total acres with a variety of high-flow media beBMPs and reduce the nitrogen, phosphorous and sediment loads reaching the waterways. The following deliverable schedule will be met to insure timely completion:

- a. Design task order for work to be completed by October 15, 2013.
- b. Design an engineering plan for the project to be completed by April 15, 2014.
- c. Contract bid, evaluation and award to be completed by September 15, 2014.
- d. Project completed by December 15, 2014. The completion report must include detailed information on the location of each project, the BMP technology implemented, the cost of implementation and a schedule for maintenance and monitoring.

Upon completion of each to these tasks, Respondent will notify Mr. Peter Gold in writing, at the address listed in paragraph 39. Respondent will monitor and maintain these projects for a year after completion. Thirty (30) days after the conclusion of the monitoring year, Respondent will submit a final report that will discuss the results of the pilot project. The report will include the total cost of construction and maintenance per project, documentation of the maintenance and monitoring conducted at each project, and an assessment of the effectiveness of the BMP technology used in the pilot project.

## **V. GENERAL PROVISIONS**

42. This Administrative Order does not relieve the Respondent of its obligation to comply with all applicable provisions of federal, state or local law and ordinance. This Administrative Order does not constitute a waiver, suspension or modification of the requirements of the CWA or of any issued permit.

43. Issuance of this Administrative Order shall not be deemed an election by EPA to forego any administrative, civil, or criminal action to seek penalties, fines, or any other appropriate relief under the Act for the violations cited herein. EPA reserves the right to seek any remedy available under the law that it deems appropriate for the violations cited above. If EPA initiates such an action, Respondent will be subject to civil penalties of up to \$37,500 per day of violation pursuant to 33 U.S.C. § 1319 and 40 C.F.R. Part 19. If a criminal judicial action is initiated, and Respondent is convicted of a criminal offense under Section 309 of the Act, Respondent may be subject to a monetary fine and/or imprisonment, and may become ineligible for certain contracts, grants, or loans pursuant to Section 508 of the Act.

44. Respondent waives any and all claims for relief and otherwise available rights or remedies to judicial or administrative review which the Respondent may have with respect to any allegation of fact or law set forth in this Order on Consent, including, but not limited to, any right of judicial review of the Section 309(a)(3) Order on Consent under the Administrative Procedure Act, 5 U.S.C. §§ 701-708.

45. EPA reserves all existing inspection authority otherwise available to EPA pursuant to Section 308 of the CWA, 33 U.S.C. § 1318, or pursuant to any other statute or law.

46. The undersigned representative of Respondent certifies that he or she is fully authorized by the party represented to enter into the terms and conditions of this AO and to execute and legally bind the party.

47. All of the terms and conditions of the Administrative Order together compromise one agreement, and each of the terms and conditions is in consideration of all of the other terms and conditions. In the event that this Administrative Order, or one or more of its terms and conditions, is held invalid, or is not executed by all of the signatories in identical form, or is not approved in such identical form by the Regional Administrator or his designee, then the entire Administrative Order shall be null and void.

**VI. EFFECTIVE DATE**

48. This ORDER is effective upon receipt.

FOR RESPONDENT Prince George's County:

By:

Date:

09/27/2013

Name:

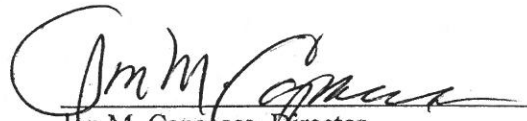
Carla A. Reid

Title:

Deputy Chief Admin Officer

SO ORDERED.

Date:



Jon M. Capatasa, Director  
Water Protection Division  
EPA, Region III

## CERTIFICATE OF SERVICE

I hereby certify that on this day, I caused to be filed with the Regional Hearing Clerk, EPA Region III, the original Administrative Order for Compliance on Consent, and that copies of this document were sent to the following individual in the manner described below:

By first class, certified mail, return receipt requested:

Mr. Adam Ortiz, Director  
Prince George's County Department of Environmental Resources  
9400 Peppercorn Place  
Suite 500  
Largo, MD 20774

Date:

9/30/13



Nina Rivera  
Sr. Asst. Regional Counsel  
US EPA Region III





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

AUG 08 2012

Mr. Jay Sakai, Director  
Water Management Administration  
Maryland Department of the Environment  
1800 Washington Boulevard  
Baltimore, Maryland 21230

Re: Specific Objection to Prince George's County Phase I Municipal Separate Storm Sewer System (MS4) Permit MD0068284

Dear Mr. Sakai:

On May 18, 2012, the U. S. Environmental Protection Agency (EPA or the Agency), received the latest draft of the above-referenced National Pollutant Discharge Elimination System (NPDES) permit (Prince George's County permit) which was reviewed pursuant to 40 C.F.R. § 123.44 and the Memorandum of Agreement (MOA) between MDE and EPA Region III (May 22, 1989).

On June 14, 2012, EPA sent written comments and a marked-up version of the Prince George's County permit to the Maryland Department of the Environment (MDE) requesting that changes be made to the draft permit. On June 15, 2012 EPA issued a time extension letter to increase our review time to 90 days, since we had reason to believe that the comments would not be addressed within the initial 30 day review period. EPA and MDE are currently in productive discussions on these issues. Since these discussions are ongoing and the 90-day review period will expire on August 16, 2012, EPA is issuing this specific objection to the issuance of the referenced permit pursuant to 40 C.F.R. §§ 123.44(b)(1) and (c)(1) and Section III.A of the MOA. As further explained herein, EPA believes that several substantive requirements for MS4 permits, as required by the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.* (CWA), and its implementing regulations, have not been incorporated into the Prince George's County permit.

EPA's objection to the draft permit and identification of revisions needed before EPA can remove the objection, *see* 40 C.F.R. § 123.44(b)(2)(ii), are described below:

**1. Water Quality Standards**

Federal regulations require that all NPDES permits contain limitations to control discharges which may cause, have the reasonable potential to cause or contribute to an excursion above water quality standards. 40 C.F.R. §122.44(d)(1)(i). Part VI of the draft Prince George's County permit (Enforcement and Penalties) contains general language

related to “minimizing” and “preventing to the MEP” contamination or physical alteration of waters of the state; however, it does not actually prohibit water quality exceedances. Please refer to EPA’s suggested language in our comments of June 14, 2012 and also consider the recommendation made therein that the language be contained in the first part of the permit and not placed in a later section that would get lost among standard conditions and boilerplate language.

MDE may also wish to refer to the 2011 previously approved Frederick County permit (p.7), which contains the following provision: “Frederick County shall annually provide watershed assessments, watershed implementation plans, opportunities for public participation, and TMDL compliance status *as required below to ensure that water quality standards are met for all water bodies in the County.*” (emphasis added) The italicized language, which was omitted from the Prince George’s County permit, would be appropriate to ensure attainment of water quality standards as well as consistency with federal regulations.

In order to resolve this portion of our objection, MDE must add the language recommended by EPA via the enclosed marked-up permit, the Frederick County language listed above, or similar acceptable language.

## **2. Anacostia Trash Total Maximum Daily Load (TMDLs)**

EPA was pleased that the draft Prince George’s County permit includes requirements for trash and litter reductions at Part III.D.4. However, the permit fails to include specific requirements related to the Anacostia River and its associated Trash TMDL, which includes a wasteload allocation (WLA) for Prince George’s County. As noted above, federal regulations require that all NPDES permits contain limitations to control pollutants which will cause an excursion above any water quality standard. They also require that effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, be consistent with the assumptions and requirements of any available applicable WLA(s) for the discharge developed under approved TMDLs. 40 C.F.R. § 122.44(d).

EPA provided language to MDE on June 14, 2012 to include in this section of the permit in accordance with the terms and conditions listed in the Anacostia TMDL. In order to resolve this portion of our objection, MDE must revise the permit to include EPA’s recommended language, or similar acceptable language.

## **3. Chesapeake Bay TMDL**

In 2010, EPA issued a document entitled “Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed” (herein after “Urban Stormwater Approach”; available at: [http://www.epa.gov/reg3wapd/pdf/pdf\\_chesbay/MS4GuideR3final07\\_29\\_10.pdf](http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf)), which outlines the standards that permitting authorities within Region III are expected to adopt to ensure that MS4 permits will contribute to meeting the water quality objectives of the

Clean Water Act, including relevant WLAs. One such expectation is that “[p]ermits implementing Chesapeake Bay watershed WLAs should also include specific two year milestones, and the reporting requirements to determine if these milestones are being met.” The Prince George’s County draft permit does not contain sufficient requirements for Chesapeake Bay milestones and related reporting requirements. The section of the Prince George’s County permit that relates to the Chesapeake Bay (Part V.A) provides background and generalities about the NPDES program related to the Chesapeake Bay TMDL; however, it fails to explicitly state what steps the permittee must actually take to comply with the TMDL.

EPA’s permit review has concluded that although the 20% restoration strategy in the Prince George’s County draft permit does present a Bay milestone (and apparently constitutes partial compliance with Maryland’s Watershed Implementation Plan), it is not adequately expressed in the draft permit. EPA included recommended language in our marked-up permit at Part VI.A that would clearly state that by requiring a 20% reduction, compliance with the TMDL can be reasonably achieved for this permit term.

In order to resolve this portion of our objection, the permit shall be revised to include the recommended provision.

#### **4. Backsliding**

Backsliding is prohibited in NPDES permits. *See* Section 402(o) of the CWA, 33 U.S.C. § 1342(o) (“[A] permit may not be renewed, reissued, or modified on the basis of effluent guidelines...subsequent to the original issuance of such a permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit...”). *See also* 40 C.F.R. § 122.44(l). Allowing additional time to complete a task that was required by the previous permit constitutes a less stringent condition and violates the prohibition against anti-backsliding.

The draft Prince George’s County permit contains a number of provisions which violate this principle. For example, the draft permit requires the permittee to, *inter alia*: (1) establish or implement a management program in areas served by the County’s MS4 (Part III.D.1-3, at pp. 2-4); and (2) establish and publicize a compliance hotline for the public reporting of suspected illicit discharges (Part III.D.6.a). These same requirements are contained in Prince George’s current permit. Prince George’s County cannot be allowed an additional permit term to complete tasks that were required under the previous permit.

In order to resolve this portion of our objection, MDE must revise the draft permit to include new and updated permit requirements that will expand upon the tasks required by the current permit. For example, instead of requiring that a hotline be established as was required by the previous permit, this permit should include a provision to track the amount of calls received and actions taken in response to those calls. EPA’s marked permit and comments to MDE reflected proposed language that would be acceptable to resolve this concern.



## **5. Industrial / Commercial Monitoring**

Part III.C of the draft Prince George's County permit requires source identification of pollutants in certain categories of stormwater runoff County-wide. However, this requirement is insufficient because the draft permit does not specifically include the category of industrial and commercial sources. An inventory of industrial and commercial sites which could contribute pollutants to receiving waters is integral to compliance with the requirement under federal regulations that stormwater management programs for a description of "[d]escribe a monitoring program for storm water discharges associated with the industrial facilities identified in paragraph (d)(2)(iv)(C)..." 40 C.F.R. § 122.26 (d)(2)(iv)(C)(2).

EPA provided recommended language in Part IV.C, Part IV.D.3.b, and Part V.A.2 of the marked-up permit that was submitted to MDE. In order to resolve this portion of our objection, MDE must revise the permit in accordance with those recommendations.

EPA also suggests the following recommendations for inclusion in the County's permit.

### **1. Education**

In Part IV.D.1 of the EPA marked-up permit (Management Programs), EPA recommended adding an additional section for staff training that includes requirements for new technology, implementing pollution prevention, good housekeeping, inspections and permit requirements. EPA believes this will improve employee efficiency and awareness during inspections while ensuring continued and thorough maintenance of the stormwater program.

### **2. Maximum Extent Practicable**

Throughout EPA's permit mark up, we requested removing the use of the phrase "maximum extent practicable" or "MEP". EPA has a number of concerns about inclusion of this language: it is imprecise in its interpretation and thus makes enforcing the permit terms more difficult; it could lead to backsliding; and it rightfully is a determination to be made by the permitting authority in the permit's terms. All references to MEP, with the exception of the requirement that the permittee develop and implement the "Stormwater Management Act of 2007 and Environmental Site Design to the MEP" should be modified.

EPA looks forward to working cooperatively with MDE to resolve the remaining issues in an expeditious manner. Until the issues are resolved, however, in accordance with 40 C.F.R. §122.4(c), MDE may not issue the Prince George's County MS4 permit without written authorization from EPA.

If you have any questions, please contact me, or Evelyn S. MacKnight, Chief, NPDES Permits Branch, at (215) 814-5717.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jon M. Capacasa", with a long horizontal flourish extending to the right.

Jon M. Capacasa, Director  
Water Protection Division

cc: Brian Clevenger, MDE  
Samuel Wynkoop, Jr., Prince George's County

**MARYLAND DEPARTMENT OF THE ENVIRONMENT**  
**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**  
**MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGE PERMIT**

**PART I. IDENTIFICATION**

**A. Permit Number:** 11-DP-3314 MD0068284

**B. Permit Area**

This permit covers all stormwater discharges from the municipal separate storm sewer system (MS4) owned or operated by Prince George's County, Maryland, and all incorporated municipalities within the County except for the City of Bowie.

**C. Effective Date:** January 2, 2014

**D. Expiration Date:** January 1, 2019

**PART II. DEFINITIONS**

Terms used in this permit are defined in relevant chapters of Title 40 of the Code of Federal Regulations (CFR) Parts 122-124 or the Code of Maryland Regulations (COMAR) 26.08.01, 26.17.01, and 26.17.02. Terms not defined in CFR or COMAR shall have the meanings attributed by common use.

**PART III. WATER QUALITY**

The permittee must manage, implement, and enforce a stormwater management program (SWMP) in accordance with the Clean Water Act (CWA) and corresponding stormwater National Pollutant Discharge Elimination System (NPDES) regulations, 40 CFR Part 122, to meet the following requirements:

1. Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with Maryland's receiving water quality standards;
2. Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body, consistent with Title 33 of the U.S. Code (USC) §1342(p)(3)(B)(iii); 40 CFR §122.44(k)(2) and (3); and
3. Comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this permit.

Compliance with all the conditions contained in PARTs IV through VII of this permit shall constitute compliance with §402(p)(3)(B)(iii) of the CWA and adequate progress toward compliance with Maryland's receiving water quality standards and any EPA approved stormwater WLAs for this permit term.

## **PART IV. STANDARD PERMIT CONDITIONS**

### **A. Permit Administration**

Prince George's County shall designate an individual to act as a liaison with the Maryland Department of the Environment (MDE) for the implementation of this permit. The County shall provide the coordinator's name, title, address, phone number, and email address. Additionally, the County shall, in its annual reports, submit to MDE an organizational chart detailing personnel and groups responsible for major NPDES program tasks in this permit. MDE shall be notified of any changes in personnel or organization relative to NPDES program tasks.

### **B. Legal Authority**

Prince George's County shall maintain adequate legal authority in accordance with NPDES regulations 40 CFR Part 122.26 throughout the term of this permit. In the event that any provision of its legal authority is found to be invalid, the County shall notify MDE within 30 days and make the necessary changes to maintain adequate legal authority. All changes shall be included in the County's annual report.

### **C. Source Identification**

Sources of pollutants in stormwater runoff countywide shall be identified and linked to specific water quality impacts on a watershed basis. The source identification process shall be used to develop watershed restoration plans. The following information shall be submitted annually for all County watersheds within the permit area in geographic information system (GIS) format with associated tables as required in PART V of this permit:

1. Storm drain system: all infrastructure, major outfalls, inlets, and associated drainage areas delineated;
2. Industrial and commercial sources: industrial and commercial land uses and sites that the County has determined have the potential to contribute significant pollutants;
3. Urban best management practices (BMPs): stormwater management facility data including outfall locations and delineated drainage areas;
4. Impervious surfaces: public and private land use delineated, controlled and uncontrolled impervious areas based on, at a minimum, Maryland's hierarchical eight-digit sub-basins;
5. Monitoring locations: locations established for chemical, biological, and physical monitoring of watershed restoration efforts and the *2000 Maryland Stormwater Design Manual*; and
6. Water quality improvement projects: projects proposed, under construction, and completed with associated drainage areas delineated.

## **D. Management Programs**

The following management programs shall be implemented in areas served by Prince George's County's MS4. These management programs are designed to control stormwater discharges to the maximum extent practicable (MEP) and shall be maintained for the term of this permit. Additionally, these programs shall be integrated with other permit requirements to promote a comprehensive adaptive approach toward solving water quality problems. The County shall modify these programs according to needed program improvements identified as a result of periodic evaluations by MDE.

### **1. Stormwater Management**

An acceptable stormwater management program shall continue to be maintained in accordance with the Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland. Activities to be undertaken by the County shall include, but not be limited to:

- a. Implementing the stormwater management design policies, principles, methods, and practices found in the latest version of the *2000 Maryland Stormwater Design Manual*. This includes:
  - i. Complying with the Stormwater Management Act of 2007 (Act) by implementing environmental site design (ESD) to the MEP for new and redevelopment projects;
  - ii. Tracking the progress toward satisfying the requirements of the Act and identifying and reporting annually the problems and modifications necessary to implement ESD to the MEP; and
  - iii. Reporting annually the modifications that have been made or need to be made to all ordinances, regulations, and new development plan review and approval processes to comply with the requirements of the Act.
- b. Maintaining programmatic and implementation information including, but not limited to:
  - i. Number of Concept, Site Development, and Final plans received. Plans that are re-submitted as a result of a revision or in response to comments should not be considered as a separate project;
  - ii. Number of redevelopment projects received;
  - iii. Number of stormwater exemptions issued; and
  - iv. Number and type of waivers received and issued, including those for quantity control, quality control, or both. Multiple requests for waivers may be received for a single project and each should be counted separately, whether part of the same project or plan. The total number of waivers requested and granted for qualitative and quantitative control shall be documented.

Stormwater program data shall be recorded on MDE's annual report database and submitted as required in PART V of this permit.

- c. Maintaining construction inspection information according to COMAR 26.17.02 for all ESD treatment practices and structural stormwater management facilities including the number of inspections conducted and violation notices issued by Prince George's County.
- d. Conducting preventative maintenance inspections, according to COMAR 26.17.02, of all ESD treatment systems and structural stormwater management facilities at least on a triennial basis. Documentation identifying the ESD systems and structural stormwater management facilities inspected, the number of maintenance inspections, follow-up inspections, the enforcement actions used to ensure compliance, the maintenance inspection schedules, and any other relevant information shall be submitted in the County's annual reports.

## 2. Erosion and Sediment Control

An acceptable erosion and sediment control program shall continue to be maintained and implemented in accordance with the Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland. Activities to be undertaken by the County shall include, but not be limited to:

- a. Implementing program improvements identified in any MDE evaluation of the County's erosion and sediment control enforcement authority;
- b. At least three times per year, conducting responsible personnel certification classes to educate construction site operators regarding erosion and sediment control compliance.
- c. Program activity shall be recorded on MDE's annual report database and submitted as required in PART V of this permit; and
- d. Reporting quarterly, information regarding earth disturbances exceeding one acre or more. Quarters shall be based on calendar year and submittals shall be made within 30 days following each quarter. The information submitted shall cover permitting activity for the preceding three months.

## 3. Illicit Discharge Detection and Elimination

Prince George's County shall continue to implement an inspection and enforcement program to ensure that all discharges to and from the MS4 that are not composed entirely of stormwater are either permitted by MDE or eliminated. Activities shall include, but not be limited to:

- a. Field screening at least 150 outfalls annually. Each outfall having a discharge shall be sampled using a chemical test kit. Within one year of permit issuance, an alternative program may be submitted for MDE approval that methodically identifies, investigates, and eliminates illegal connections to the County's storm drain system;

- b. Conducting annual visual surveys of commercial and industrial areas as identified in PART IV.C.2 above for discovering, documenting, and eliminating pollutant sources. Areas surveyed shall be reported annually;
- c. Maintaining a program to address and, if necessary, respond to illegal discharges, dumping, and spills;
- d. Using appropriate enforcement procedures for investigating and eliminating illicit discharges, illegal dumping, and spills. Significant discharges shall be reported to MDE for enforcement and/or permitting; and
- e. Reporting illicit discharge detection and elimination activities as specified in PART V of this permit.

4. Trash and Litter

Prince George's County drains partially to the Anacostia River, which has been determined to be impaired by trash. The trash and litter section of this permit is to assist in efforts to address water quality improvements for all water bodies in Prince George's County, as well as addressing the Anacostia Trash total maximum daily load (TMDL). Increases in trash discharges to receiving waters have become a growing concern both nationally and within Maryland. This section requires Prince George's County to evaluate current trash and litter control efforts, develop strategies to reduce trash, floatables, and debris, maintain consistency with the assumptions of the Anacostia Trash TMDL, and to bolster public education.

- a. Within one year of permit issuance, the County shall inventory and evaluate all current trash and recyclable pick-up operations, litter control programs, and public outreach efforts. The analysis shall identify opportunities for improving overall efficiency, especially in the Anacostia River watershed.
- b. Within one year of permit issuance, develop and implement a public education and outreach strategy with specific performance goals, and corresponding deadlines to initiate or increase residential and commercial recycling rates, improve trash management, and reduce littering. The strategy shall include:
  - i. Educating the public on the importance of reducing, reusing, and recycling;
  - ii. Disseminating information by using signs, articles, and other media outlets;
  - iii. Promoting educational programs in schools, businesses, community associations, etc.; and
  - iv. Providing the strategy to interested parties upon request.
- c. Within one year of permit issuance, in conformance with the County's trash reduction strategy, develop a work plan that is consistent with the assumptions of

the Anacostia Trash TMDL, which estimates that 170,628 pounds of trash will need to be removed annually. The work plan shall include, but not be limited to:

- i. A detailed schedule for implementing the controls necessary for attaining the annual trash removal rate, as determined in the Anacostia River TMDL, by the fifth year of this permit term;
  - ii. Trash reduction benchmarks to be met in years two and four; and
  - iii. The methods of implementation including the removal of trash from the County's storm drain system and waterbodies; source control of trash prior to entry into the County's storm drain system; and the prevention of trash through public trash collection, recycling, and other innovative measures (e.g. bag fees).
- d. Within one year of permit issuance, the County shall develop accounting methods that effectively quantify annual trash reductions based on MDE's TMDL analysis or an equivalent and comparable County trash reduction analysis.
  - e. Report annually the progress toward implementing the trash reduction strategy. The report shall describe the status of trash elimination efforts including resources (e.g., personnel and financial) expended and the effectiveness of all program components including public education and outreach.
  - f. Evaluate and modify the local trash reduction strategy with an emphasis on source reduction and proper disposal.
  - g. Conduct a public participation process in the development of the trash reduction strategy that includes:
    - i. Notice in a local newspaper and the County's web site outlining how the public may obtain information and provide comments to the County regarding the trash reduction strategy;
    - ii. Procedures for providing the strategy to interested parties upon request;
    - iii. A minimum 30 day public comment period; and
    - iv. A summary of how the County addressed or will address any material public comments received.

5. Property Management and Maintenance

- a. Prince George's County shall ensure that a Notice of Intent (NOI) has been submitted to MDE and a pollution prevention plan developed for each County-owned municipal facility requiring NPDES stormwater general permit coverage. The status of pollution prevention plan development and implementation for each County-owned municipal facility shall be reviewed, documented, and submitted to MDE annually.
- b. The County shall continue to implement a program to reduce pollutants associated with maintenance activities at County-owned facilities including parks, roadways,



and parking lots. The maintenance program shall include these or MDE approved alternative activities:

- i. Street sweeping;
- ii. Inlet inspection and cleaning;
- iii. Reducing the use of pesticides, herbicides, fertilizers, and other pollutants associated with vegetation management through increased use of integrated pest management;
- iv. Reducing the use of winter weather deicing materials through research, continual testing and improvement of materials, equipment calibration, employee training, and effective decision-making; and
- v. Ensuring that all County staff receive adequate training in pollution prevention and good housekeeping practices.

The County shall report annually on the changes in any maintenance practices and the overall pollutant reductions resulting from the maintenance program. Within one year of permit issuance, an alternative maintenance program may be submitted for MDE approval indicating the activities to be undertaken and associated pollutant reductions.

6. Public Education

Prince George's County shall continue to implement a public education and outreach program to reduce stormwater pollutants. Outreach efforts may be integrated with other aspects of the County's activities. These efforts are to be documented and summarized in each annual report. The County shall continue to implement a public outreach and education campaign with specific performance goals and deadlines to:

- a. Maintain a compliance hotline or similar mechanism for public reporting of water quality complaints, including suspected illicit discharges, illegal dumping, and spills.
- b. Provide information to inform the general public about the benefits of:
  - i. Increasing water conservation;
  - ii. Residential and community stormwater management implementation and facility maintenance;
  - iii. Proper erosion and sediment control practices;
  - iv. Increasing proper disposal of household hazardous waste;
  - v. Improving lawn care and landscape management (e.g., the proper use of herbicides, pesticides, and fertilizers, ice control and snow removal, cash for clippers, etc.);
  - vi. Residential car care and washing; and
  - vii. Proper pet waste management.
- c. Provide information regarding the following water quality issues to the regulated community when requested:

- i. NPDES permitting requirements;
- ii. Pollution prevention plan development;
- iii. Proper housekeeping; and
- iv. Spill prevention and response.

**E. Restoration Plans and Total Maximum Daily Load**

In compliance with §402(p)(3)(B)(iii) of the CWA, MS4 permits must require stormwater controls to reduce the discharge of pollutants to the MEP. By regulation at 40 CFR §122.44, BMPs and programs implemented pursuant to this permit must be consistent with applicable WLAs developed under EPA approved TMDLs (see list of EPA approved TMDLs attached and incorporated as Attachment B).

Prince George's County shall annually provide watershed assessments, restoration plans, opportunities for public participation, and TMDL compliance status to MDE. A systematic assessment shall be conducted and a detailed restoration plan developed for all watersheds within Prince George's County. As required below, watershed assessments and restoration plans shall include a thorough water quality analysis, identification of water quality improvement opportunities, and a schedule for BMP and programmatic implementation to meet stormwater WLAs included in EPA approved TMDLs.

1. Watershed Assessments

- a. By the end of the permit term, Prince George's County shall complete detailed watershed assessments for the entire County. Watershed assessments conducted during previous permit cycles may be used to comply with this requirement, provided the assessments include all of the items listed in PART IV.E.1.b. below. Assessments shall be performed at an appropriate watershed scale (e.g., Maryland's hierarchical eight or twelve-digit sub-basins) and be based on MDE's TMDL analysis or an equivalent and comparable County water quality analysis.
- b. Watershed assessments by the County shall:
  - i. Determine current water quality conditions;
  - ii. Include the results of a visual watershed inspection;
  - iii. Identify and rank water quality problems;
  - iv. Prioritize all structural and nonstructural water quality improvement projects; and
  - v. Specify pollutant load reduction benchmarks and deadlines that demonstrate progress toward meeting all applicable stormwater WLAs.

2. Restoration Plans

- a. Within one year of permit issuance, Prince George's County shall submit an impervious surface area assessment consistent with the methods described in the MDE document "Accounting for Stormwater Wasteload Allocations and Impervious Acres Treated, Guidance for National Pollutant Discharge

Elimination System Stormwater Permits” (MDE, June 2011 or subsequent versions). Upon approval by MDE, this impervious surface area assessment shall serve as the baseline for the restoration efforts required in this permit.

By the end of this permit term, Prince George’s County shall commence and complete the implementation of restoration efforts for twenty percent of the County’s impervious surface area consistent with the methodology described in the MDE document cited in PART IV.E.2.a. that has not already been restored to the MEP. Equivalent acres restored of impervious surfaces, through new retrofits or the retrofit of pre-2002 structural BMPs, shall be based upon the treatment of the WQv criteria and associated list of practices defined in the *2000 Maryland Stormwater Design Manual*. For alternate BMPs, the basis for calculation of equivalent impervious acres restored is based upon the pollutant loads from forested cover.

- b. Within one year of permit issuance, Prince George’s County shall submit to MDE for approval a restoration plan for each stormwater WLA approved by EPA prior to the effective date of the permit. The County shall submit restoration plans for subsequent TMDL WLAs within one year of EPA approval. Upon approval by MDE, these restoration plans will be enforceable under this permit. As part of the restoration plans, Prince George’s County shall:
  - i. Include the final date for meeting applicable WLAs and a detailed schedule for implementing all structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives necessary for meeting applicable WLAs;
  - ii. Provide detailed cost estimates for individual projects, programs, controls, and plan implementation;
  - iii. Evaluate and track the implementation of restoration plans through monitoring or modeling to document the progress toward meeting established benchmarks, deadlines, and stormwater WLAs; and
  - iv. Develop an ongoing, iterative process that continuously implements structural and nonstructural restoration projects, program enhancements, new and additional programs, and alternative BMPs where EPA approved TMDL stormwater WLAs are not being met according to the benchmarks and deadlines established as part of the County’s watershed assessments.

### 3. Public Participation

Prince George’s County shall provide continual outreach to the public regarding the development of its watershed assessments and restoration plans. Additionally, the County shall allow for public participation in the TMDL process, solicit input, and incorporate any relevant ideas and program improvements that can aid in achieving TMDLs and water quality standards. Prince George’s County shall provide:

- a. Notice in a local newspaper and the County's web site outlining how the public may obtain information on the development of watershed assessments and stormwater watershed restoration plans and opportunities for comment;
- b. Procedures for providing copies of watershed assessments and restoration plans to interested parties upon request;
- c. A minimum 30 day comment period before finalizing watershed assessments and stormwater watershed restoration plans; and
- d. A summary in each annual report of how the County addressed or will address any material comment received from the public.

4. TMDL Compliance

Prince George's County shall evaluate and document its progress toward meeting all applicable stormwater WLAs included in EPA approved TMDLs. An annual TMDL assessment report with tables shall be submitted to MDE. This assessment shall include complete descriptions of the analytical methodology used to evaluate the effectiveness of the County's restoration plans and how these plans are working toward achieving compliance with EPA approved TMDLs. Prince George's County shall further provide:

- a. Estimated net change in pollutant load reductions from all completed structural and nonstructural water quality improvement projects, enhanced stormwater management programs, and alternative stormwater control initiatives;
- b. A comparison of the net change in pollutant load reductions detailed above with the established benchmarks, deadlines, and applicable stormwater WLAs;
- c. Itemized costs for completed projects, programs, and initiatives to meet established pollutant reduction benchmarks and deadlines;
- d. Cost estimates for completing all projects, programs, and alternatives necessary for meeting applicable stormwater WLAs; and
- e. A description of a plan for implementing additional watershed restoration actions that can be enforced when benchmarks, deadlines, and applicable stormwater WLAs are not being met or when projected funding is inadequate.

**F. Assessment of Controls**

Prince George's County and ten other municipalities in Maryland have been conducting discharge characterization monitoring since the early 1990s. From this expansive monitoring, a statewide database has been developed that includes hundreds of storms across numerous land uses. Analyses of this dataset and other research performed nationally effectively characterize stormwater runoff in Maryland for NPDES municipal stormwater purposes. To build on the

existing information and to better track progress toward meeting TMDLs, better data are needed on ESD performance and BMP efficiencies and effectiveness.

Assessment of controls is critical for determining the effectiveness of the NPDES stormwater management program and progress toward improving water quality. The County shall use chemical, biological, and physical monitoring to assess watershed restoration efforts, document BMP effectiveness, or calibrate water quality models for showing progress toward meeting any applicable WLAs developed under EPA approved TMDLs identified above. Additionally, the County shall continue physical stream monitoring in the Black Branch watershed to assess the implementation of the latest version of the *2000 Maryland Stormwater Design Manual*. Specific monitoring requirements are described below.

1. Watershed Restoration Assessment

The County shall continue monitoring the Bear Branch watershed, or, select and submit for MDE's approval a new watershed restoration project for monitoring. Monitoring activities shall occur where the cumulative effects of watershed restoration activities can be assessed. One outfall and associated in-stream station, or other locations based on a study design approved by MDE, shall be monitored. The minimum criteria for chemical, biological, and physical monitoring are as follows:

a. Chemical Monitoring:

- i. Twelve (12) storm events shall be monitored per year at each monitoring location with at least two occurring per quarter. Quarters shall be based on the calendar year. If extended dry weather periods occur, baseflow samples shall be taken at least once per month at the monitoring stations if flow is observed;
- ii. Discrete samples of stormwater flow shall be collected at the monitoring stations using automated or manual sampling methods. Measurements of pH and water temperature shall be taken;
- iii. At least three (3) samples determined to be representative of each storm event shall be submitted to a laboratory for analysis according to methods listed under 40 CFR Part 136 and event mean concentrations (EMC) shall be calculated for:

Biochemical Oxygen Demand (BOD <sub>5</sub> )	Total Lead
Total Kjeldahl Nitrogen (TKN)	Total Copper
Nitrate plus Nitrite	Total Zinc
Total Suspended Solids	Total Phosphorus
Total Petroleum Hydrocarbons (TPH)	Hardness
E. coli or enterococcus	

- iv. Continuous flow measurements shall be recorded at the in-stream monitoring station or other practical locations based on the approved study design. Data collected shall be used to estimate annual and seasonal pollutant loads and reductions, and for the calibration of watershed

assessment models. Pollutant load estimates shall be reported according to any EPA approved TMDLs with stormwater WLAs.

b. Biological Monitoring:

- i. Benthic macroinvertebrate samples shall be gathered each Spring between the outfall and in-stream stations or other practical locations based on an MDE approved study design; and
- ii. The County shall use the EPA Rapid Bioassessment Protocols (RBP), Maryland Biological Stream Survey (MBSS), or other similar method approved by MDE.

c. Physical Monitoring:

- i. A geomorphologic stream assessment shall be conducted between the outfall and in-stream monitoring locations or in a reasonable area based on the approved study design. This assessment shall include an annual comparison of permanently monumented stream channel cross-sections and the stream profile;
- ii. A stream habitat assessment shall be conducted using techniques defined by the EPA's RBP, MBSS, or other similar method approved by MDE; and
- iii. A hydrologic and/or hydraulic model shall be used (e.g., TR-20, HEC-2, HEC-RAS, HSPF, SWMM, etc.) in the fourth year of the permit to analyze the effects of rainfall; discharge rates; stage; and, if necessary, continuous flow on channel geometry.

d. Annual Data Submittal: The County shall describe in detail its monitoring activities for the previous year and include the following:

- i. EMCs submitted on MDE's long-term monitoring database as specified in PART V below;
- ii. Chemical, biological, and physical monitoring results and a combined analysis for the approved monitoring locations; and
- iii. Any requests and accompanying justifications for proposed modifications to the monitoring program.

2. Stormwater Management Assessment

The County shall continue to monitor the Black Branch watershed or select and submit for MDE's approval a new watershed restoration project for determining the effectiveness of stormwater management practices for stream channel protection.

Physical stream monitoring protocols shall include:

- a. An annual stream profile and survey of permanently monumented cross-sections in Black Branch to evaluate channel stability in conjunction with the residential development of Oak Creek Club;

- b. A comparison of the annual stream profile and survey of the permanently monumented cross-sections with baseline conditions for assessing areas of aggradation and degradation; and
- c. A hydrologic and/or hydraulic model shall be used (e.g., TR-20, HEC-2, HEC-RAS, HSPF, SWMM, etc.) in the fourth year of the permit to analyze the effects of rainfall; discharge rates; stage; and, if necessary, continuous flow on channel geometry.

**G. Program Funding**

- 1. Annually, a fiscal analysis of the capital, operation, and maintenance expenditures necessary to comply with all conditions of this permit shall be submitted as required in PART V below.
- 2. Adequate program funding to comply with all conditions of this permit shall be maintained. Lack of funding does not constitute a justification for noncompliance with the terms of this permit.

**PART V. PROGRAM REVIEW AND ANNUAL PROGRESS REPORTING**

**A. Annual Reporting**

- 1. Annual progress reports, required under 40 CFR 122.42(c), will facilitate the long-term assessment of Prince George's County's NPDES stormwater program. The County shall submit annual reports on or before the anniversary date of this permit and post these reports on the County's website. All information, data, and analyses shall be based on the fiscal year and include:
  - a. The status of implementing the components of the stormwater management program that are established as permit conditions including:
    - i. Source Identification;
    - ii. Stormwater Management;
    - iii. Erosion and Sediment Control;
    - iv. Illicit Discharge Detection and Elimination;
    - v. Trash and Litter;
    - vi. Property Management and Maintenance;
    - vii. Public Education;
    - viii. Watershed Assessment;
    - ix. Restoration Plans;
    - x. TMDL Compliance;
    - xi. Assessment of Controls; and
    - xii. Program Funding.

- b. A narrative summary describing the results and analyses of data, including monitoring data that is accumulated throughout the reporting year;
  - c. Expenditures for the reporting period and the proposed budget for the upcoming year;
  - d. A summary describing the number and nature of enforcement actions, inspections, and public education programs;
  - e. The identification of water quality improvements and documentation of attainment and/or progress toward attainment of benchmarks and applicable WLAs developed under EPA approved TMDLs; and
  - f. The identification of any proposed changes to the County's program when WLAs are not being met.
2. To enable MDE to evaluate the effectiveness of permit requirements, the following information shall be submitted in a format consistent with Attachment A:
- a. Storm drain system mapping (PART IV.C.1.);
  - b. Urban BMP locations (PART IV.C.3.);
  - c. Impervious surfaces (PART IV.C.4.);
  - d. Water quality improvement project locations (PART IV.C.6.);
  - e. Monitoring site locations (PART IV.C.5.);
  - f. Chemical monitoring results (PART IV.F.1.);
  - g. Pollutant load reductions (PART IV.E.4. and IV.F.1.);
  - h. Biological and habitat monitoring (PART IV.F.1.);
  - i. Illicit discharge detection and elimination activities (PART IV.D.3.);
  - j. Erosion and sediment control and stormwater program information (PART IV.D.1. and IV.D.2.);
  - k. Grading permit information - quarterly (PART IV.D.2.); and
  - l. Fiscal analyses - cost for NPDES related implementation (PART IV.G.).
3. Because this permit uses an iterative approach to implementation, the County must evaluate the effectiveness of its programs in each annual report. BMP and program modifications shall be made within 12 months if the County's annual report does not



demonstrate compliance with this permit and show progress toward meeting WLAs developed under EPA approved TMDLs.

**B. Program Review**

In order to assess the effectiveness of the County's NPDES program for eliminating non-stormwater discharges through the illicit connection program and reducing the discharge of pollutants to protect water quality, MDE will review program implementation, annual reports, and periodic data submittal. Procedures for the review of local erosion and sediment control and stormwater management programs exist in Maryland's sediment control and stormwater management laws. Additional evaluations may be conducted at MDE's discretion to determine compliance with permit conditions.

**C. Reapplication for NPDES Stormwater Discharge Permit**

This permit is effective for no more than 5 years, unless administratively continued by MDE. Continuation or reissuance of this permit beyond this permit term will require the County to reapply for NPDES stormwater discharge permit coverage in its fourth year annual report. Failure to reapply for coverage constitutes a violation of this permit.

As part of this application process, Prince George's County shall submit to MDE an executive summary of its NPDES stormwater management program that specifically describes how the County is meeting the overall goal to ensure that each County watershed has been thoroughly evaluated and its progress in implementing water quality improvements. This application shall be used to gauge the effectiveness of the County's NPDES stormwater program and will provide guidance for developing future permit conditions. At a minimum, the application summary shall include:

1. Prince George's County's NPDES stormwater program goals;
2. Program summaries for the permit term regarding:
  - a. Illicit discharge detection and elimination results;
  - b. Restoration plan status including County totals for impervious acres, impervious acres controlled by stormwater management, the current status of water quality improvement projects and acres managed, and documentation of progress toward meeting WLAs developed under EPA approved TMDLs;
  - c. Pollutant load reductions as a result of this permit and an evaluation of whether TMDLs are being achieved;
  - d. Impervious acres compared to the baseline and twenty percent restoration requirement in PART IV.E.2.a.; and
  - e. Other relevant data and information for describing County programs;

3. Program operation and capital improvement costs for the permit term; and
4. Descriptions of any proposed permit condition changes based on analyses of the successes and failures of the County's efforts to comply with the conditions of this permit.

## **PART VI. SPECIAL PROGRAMMATIC CONDITIONS**

### **A. Chesapeake Bay Restoration by 2025**

A Chesapeake Bay TMDL has been developed by the EPA for the six Bay States (Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. The TMDL describes the level of effort that will be necessary for meeting water quality criteria and restoring Chesapeake Bay. This permit is requiring compliance with the Chesapeake Bay TMDL through the use of a strategy that calls for the restoration of twenty percent of previously developed impervious land with little or no controls within this five year permit term as described in Maryland's Watershed Implementation Plan. The TMDL is an aggregate of nonpoint sources or the load allocation (LA), point sources or WLA, and a margin of safety. The State is required to issue NPDES permits to point source discharges that are consistent with the assumptions of any applicable TMDL, including those approved subsequent to permit issuance.

Urban stormwater is defined in the CWA as a point source discharge and will subsequently be a part of Maryland's WLA. The NPDES stormwater permits can play a significant role in regulating pollutants from Maryland's urban sector and in the development of Chesapeake Bay Watershed Implementation Plans. Therefore, Maryland's NPDES stormwater permits issued to Prince George's County and other municipalities will require coordination with MDE's Watershed Implementation Plan and be used as the regulatory backbone for controlling urban pollutants toward meeting the Chesapeake Bay TMDL by 2025.

### **B. Comprehensive Planning**

Prince George's County shall cooperate with other agencies during the completion of the Water Resources Element (WRE) as required by the Maryland Economic Growth, Resource Protection and Planning Act of 1992 (Article 66B, Annotated Code of Maryland). Such cooperation shall entail all reasonable actions authorized by law and shall not be restricted by the responsibilities attributed to other entities by separate State statute, including but not limited to reviewing and approving plans and appropriating funds.

## **PART VII. ENFORCEMENT AND PENALTIES**

### **A. Discharge Prohibitions and Receiving Water Limitations**

Prince George's County shall prohibit non-stormwater discharges through its MS4. NPDES permitted non-stormwater discharges are exempt from this prohibition. Discharges from the following will not be considered a source of pollutants when properly managed: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated ground water infiltration to separate storm sewers; uncontaminated pumped ground water;

discharges from potable water sources; foundation drains; air conditioning condensation; irrigation waters; springs; footing drains; lawn watering; individual residential car washing; flows from riparian habitats and wetlands; de-chlorinated swimming pool discharges (not including filter backwash); street wash water; and fire fighting activities.

Consistent with § 402(p)(3)(B)(iii) of the CWA, the County shall take all reasonable steps to minimize or prevent the contamination or other alteration of the physical, chemical, or biological properties of any waters of the State, including a change in temperature, taste, color, turbidity, or odor of the waters or the discharge or deposit of any organic matter, harmful organism, or liquid, gaseous, solid, radioactive, or other substance into any waters of the State, that will render the waters harmful to:

1. Public health, safety, or welfare;
2. Domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial use;
3. Livestock, wild animals, or birds; and
4. Fish or other aquatic life.

**B. Duty to Mitigate**

Prince George's County shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

**C. Duty to Comply**

Prince George's County shall be responsible for complying with all conditions of this permit. Other entities may be used to meet various permit obligations provided that both the County and the other entity agree contractually. Regardless of any arrangement entered into however, the County remains responsible for permit compliance. In no case may this responsibility or permit compliance liability be transferred to another entity.

Failure to comply with a permit provision constitutes a violation of the CWA and is grounds for enforcement action; permit termination, revocation, or modification; or denial of a permit renewal application. The County shall comply at all times with the provisions of the Environment Article, Title 4, Subtitles 1, 2, and 4; Title 7, Subtitle 2; and Title 9, Subtitle 3 of the Annotated Code of Maryland.

The County shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the County to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the County only when the operation is necessary to achieve compliance with the conditions of the permit.

## **D. Sanctions**

### **1. Penalties Under the CWA - Civil and Criminal**

Section 309(g)(2) of the CWA, 33 USC § 1319(g)(2) provides that any person who violates any permit condition is subject to a civil penalty not to exceed \$10,000 per day for each violation, not to exceed \$125,000. Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, 40 CFR Part 19, any person who violates any NPDES permit condition or limitation is liable for an administrative penalty not to exceed \$16,000 per day for each such violation, up to a total penalty of \$177,500. Pursuant to Section 309(c) of the CWA, 33 USC § 1319(c), any person who negligently violates any permit condition is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. Any person who knowingly violates any permit condition is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both.

### **2. Penalties Under the State's Environment Article - Civil and Criminal**

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the County from civil or criminal responsibilities and/or penalties for a violation of Title 4, Title 7, and Title 9 of the Environment Article, Annotated Code of Maryland, or any federal, local, or other State law or regulation. Section 9-342 of the Environment Article provides that a person who violates any condition of this permit is liable to a civil penalty of up to \$10,000 per violation, to be collected in a civil action brought by MDE, and with each day a violation continues being a separate violation. Section 9-342 further authorizes the MDE to impose upon any person who violates a permit condition, administrative civil penalties of up to \$5,000 per violation, up to \$50,000.

Section 9-343 of the Environment Article provides that any person who violates a permit condition is subject to a criminal penalty not exceeding \$25,000 or imprisonment not exceeding 1 year, or both for a first offense. For a second offense, Section 9-343 provides for a fine not exceeding \$50,000 and up to two years imprisonment.

The Environment Article, §9-343, Annotated Code of Maryland, provides that any person who tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$50,000 per violation, or by imprisonment for not more than two years per violation, or both.

The Environment Article, §9-343, Annotated Code of Maryland, provides that any person who knowingly makes any false statement, representation, or certification in any records or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$50,000 per violation, or by imprisonment for not more than two years per violation, or both.

**E. Permit Revocation and Modification**

1. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the County for a permit modification or a notification of planned changes or anticipated noncompliance does not stay any permit condition. A permit may be modified by MDE upon written request by the County and after notice and opportunity for a public hearing in accordance with and for the reasons set forth in COMAR 26.08.04.10.

After notice and opportunity for a hearing and in accordance with COMAR 26.08.04.10, MDE may modify, suspend, or revoke and reissue this permit in whole or in part during its term for causes including, but not limited to the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
- c. A change in any condition that requires either a temporary reduction or elimination of the authorized discharge;
- d. A determination that the permitted discharge poses a threat to human health or welfare or to the environment and can only be regulated to acceptable levels by permit modification or termination;
- e. To incorporate additional controls that are necessary to ensure that the permit effluent limit requirements are consistent with any applicable TMDL WLA allocated to the discharge of pollutants from the MS4; or
- f. As specified in 40 CFR §§122.62, 122.63, 122.64, and 124.5.

2. Duty to Provide Information

The County shall furnish to MDE, within a reasonable time, any information that MDE may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; or to determine compliance with this permit. The County shall also furnish to MDE, upon request, copies of records required to be kept by this permit.

**F. Inspection and Entry**

Prince George's County shall allow an authorized representative of the State or EPA, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter the permittee's premises where a regulatory activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and obtain copies at reasonable times of any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times, without prior notice, any construction site, facility, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA, any substances or parameters at any location.

**G. Monitoring and Recordkeeping**

Unless otherwise specified by this permit, all monitoring and records of monitoring shall be in accordance with 40 CFR Part 122.41(j).

**H. Property Rights**


The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, State, or local law or regulations.

**I. Severability**

The provisions of this permit are severable. If any provision of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect. If the application of any provision of this permit to any circumstance is held invalid, its application to other circumstances shall not be affected.

**J. Signature of Authorized Administrator and Jurisdiction**

Each application, report, or other information required under this permit to be submitted to MDE shall be signed as required by COMAR 26.08.04.01-1. Signatories shall be a principal executive officer, ranking elected official, or other duly authorized employee.

  
Jay G. Sakai, Director  
Water Management Administration

  
Date



## Attachment A Annual Report Databases

As part of the NPDES annual reporting process, permittees are required to complete databases for storm drain systems, urban best management practices, impervious surfaces, watershed restoration, monitoring site locations, chemical monitoring, pollutant load reductions, biological monitoring, illicit discharge detection, erosion and sediment control responsible personnel training, quarterly grading permit summaries, and fiscal analyses. For compatibility purposes, databases should be submitted in Access or Excel. Any file in a format other than Access or Excel is to be submitted in a “\*.dbf” format. Examples of databases and definitions for each category are provided below. If there are any questions regarding the compatibility of databases, please contact the Water Management Administration’s Sediment, Stormwater, and Dam Safety Program at (410) 537-3543.

MDE is utilizing Environmental System Research Institute (ESRI) Arc Geographic Information System (ArcGIS) technologies to track and update all collected datasets and integrate them spatially. GIS datasets shall be submitted in an ESRI Geodatabase or shapefile format, (i.e., “\*.shp”). All datasets shall conform to the Maryland State Geographic Information Committee standard – North American Datum (NAD), 1983 Maryland State Plane Coordinate System in “meter” units. Location information collected by global positioning systems (GPS) for the purposes of populating the GIS datasets shall be accurate to the sub-meter (+/- 1 meter) level for acceptable mapping. Additionally, each table below requires a “unique identifier” which is necessary for linking GIS mapping locations to datasets with further descriptions (i.e., outfall dimensions, BMP type, chemical results, etc.).

### A. Storm Drain System Mapping Associated with GIS Coverage (PART III.C.1.)

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
OUTFALL_ID	TEXT	15	Unique outfall ID
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Northing
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Easting
DIM_OUTFL	NUMBER	3	Outfall Dimensions in inches
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
TYPE_OUTFL	TEXT	3	Outfall Type (RCP, CMP, PVC)
DRAIN_AREA	NUMBER	8	Drainage area to outfall (acres) <sup>1</sup>
LAND_USE	NUMBER	3	Predominant land use <sup>2</sup>

<sup>1</sup> GIS shapefile required

<sup>2</sup> Use attached Maryland Office of Planning land use codes.

### B. Urban Best Management Practices (BMPs) Associated with GIS Coverage (PART III.C.2.)

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STRU_ID	TEXT	8	Unique structure ID <sup>5</sup>
PERMIT_NO	TEXT	10	Unique permit number
STRU_NAME	TEXT	60	Structure name
ADDRESS	TEXT	50	Structure address
CITY	TEXT	15	Structure address
STATE	TEXT	2	Structure address
ZIP	NUMBER	10	Structure address
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Northing
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Easting
ADC_MAP	TEXT	5	ADC map book coordinate (optional if BMP has MD Northing\Easting)
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code



STRU_TYPE	TEXT	10	Identify structure or BMP type <sup>3</sup>
LAND_USE	NUMBER	3	Predominant land use <sup>2</sup>
CON_PURPOSE	TEXT	4	New development (NEWD), Redevelopment (REDE), or Restoration (REST)
DRAIN_AREA	NUMBER	8	Structure drainage area (acres) <sup>1</sup>
IMP_ACRES	NUMBER	8	Structure impervious drainage area (acres) <sup>1</sup>
TOT_DRAIN	NUMBER	8	Total site area (acres)
WQ_VOLUME	NUMBER	8	Volume of rainfall depth in inches managed by the practice
RCN	NUMBER	5	Runoff curve number (weighted)
ON_OFF_SITE	TEXT	3	On or offsite structure
APPR_DATE	DATE/TIME	8	Permit approval date
BUILT_DATE	DATE/TIME	8	Construction completion date
INSP_DATE	DATE/TIME	8	Record most recent inspection date
GEN_COMNT	TEXT	60	General comments
LAST_CHANGE	DATE/TIME	8	Date last change made to this record

<sup>1</sup> GIS shapefile required

<sup>2</sup> Use attached Maryland Office of Planning land use codes

<sup>3</sup> Use attached urban BMP type code

<sup>5</sup> Use attached unique structure identification codes

### C. Impervious Surfaces Associated with GIS Coverage (PART III.C.3.)

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
IMP_ACREAGE	NUMBER	8	Total impervious acreage in watershed <sup>1</sup>
IMP_CONTROLLED	NUMBER	8	Impervious acreage controlled to the maximum extent practicable <sup>1</sup>
IMP_BASELINE	NUMBER	8	Impervious acreage not controlled to the maximum extent practicable <sup>1,2</sup>
RESTORATION_P	NUMBER	8	Impervious acreage proposed for watershed restoration <sup>1</sup>
RESTORATION_UC	NUMBER	8	Impervious acreage under construction for watershed restoration <sup>1</sup>
RESTORATION_C	NUMBER	8	Impervious acreage completed (since program inception) <sup>1</sup>

<sup>1</sup> GIS shapefile required

<sup>2</sup> Fixed baseline based on MDE Guidance and approval

### D. Water Quality Improvement Project Locations Associated with GIS Coverage (PART III.C.5.)

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STRU_ID	TEXT	8	Unique structure ID <sup>5</sup>
STRU_NAME	TEXT	60	Structure name
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Northing
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Easting
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
STRU_TYPE	TEXT	10	Identify structure or BMP type <sup>3</sup>
LAND_USE	NUMBER	3	Predominant land use <sup>2</sup>
DRAIN_AREA	NUMBER	8	Structure drainage area (acres) <sup>1</sup>
IMP_ACRES	NUMBER	8	Structure impervious drainage area (acres) <sup>1</sup>
WQ_VOLUME	NUMBER	8	Volume of rainfall depth in inches managed by the practice
LINEAR_FT	NUMBER	8	Use this field for stream restoration or shoreline protection
POUNDS_TN	NUMBER	8	Use this field for street sweeping or inlet cleaning
POUNDS_TP	NUMBER	8	Use this field for street sweeping or inlet cleaning
POUNDS_TSS	NUMBER	8	Use this field for street sweeping or inlet cleaning
APPR_DATE	DATE/TIME	8	Permit approval date
BUILT_DATE	DATE/TIME	8	Construction completion date
INSP_DATE	DATE/TIME	8	Record most recent inspection date
GEN_COMNT	TEXT	60	General comments



LAST_CHANGE	DATE/TIME	8	Date last change made to this record
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<sup>1</sup> GIS shapefile required

<sup>2</sup> Use attached Maryland Office of Planning land use codes

<sup>3</sup> Use attached urban BMP type code

<sup>5</sup> Use attached unique structure identification codes

#### E. Monitoring Site Locations Associated with GIS Coverage (PART III.C.4.)

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STATION	TEXT	30	Unique station ID
OUTFALL_OR_INSTREAM	TEXT	10	Outfall or instream station
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Northing
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 meters) Easting
DRAIN_AREA	NUMBER	8	Drainage area in acres <sup>1</sup>

<sup>1</sup> GIS shapefile required

#### E.1. Monitoring Site Locations - Use for Multiple Land Use Values in the Drainage Area

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STATION	TEXT	30	Name of station (associated with unique station ID in section E.)
LAND_USE_RANK	NUMBER	8	Ranking of land use from predominant to least
LAND_USE	NUMBER	3	Identify land use <sup>2</sup>
DRAIN_AREA	NUMBER	8	Drainage area in acres <sup>1</sup>

<sup>1</sup> GIS shapefile required

<sup>2</sup> Use attached Maryland Office of Planning land use codes

#### E.2. Monitoring Site Locations - Use for Multiple Stormwater BMPs in the Drainage Area

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STATION	TEXT	30	Name of station (associated with unique station ID in section E.)
BMP_RANK	NUMBER	5	Ranking of BMPs from predominant to least
STRU_TYPE	TEXT	10	Identify structure or BMP type <sup>3</sup>
BMP_DESCRIPTION	TEXT	60	Brief description of BMP
DRAIN_AREA	NUMBER	8	Drainage area in acres treated by BMP <sup>1</sup>

<sup>1</sup> GIS shapefile required

<sup>3</sup> Use attached urban BMP type code.

#### F. Chemical Monitoring (PART III.F.1.)

Column Name	Data Type	Length	Description
JURISDICTION	TEXT	50	Monitoring jurisdiction name
EVENT_DATE	DATE/TIME	8	Date of storm event
EVENT_TIME	DATE/TIME	8	Time monitoring begins
STATION	TEXT	30	Station name (associated w/ unique station ID in section E.)
OUTFALL_OR_INSTREAM	TEXT	10	Outfall or instream station
STORM_OR_BASEFLOW	TEXT	10	Storm or base flow sample
DEPTH	NUMBER	5	Depth of rain in inches
DURATION	NUMBER	5	Duration of event in hours and minutes
INTENSITY	NUMBER	5	Intensity = depth/duration
TOTAL_STORM_FLOW_VOLUME	NUMBER	5	Total storm flow volume in gallons

WATER_TEMP	NUMBER	5	Flow weighted average of water temperature (Fahrenheit)
pH	NUMBER	5	Flow weighted average of pH
BOD_dt	NUMBER	5	Biological Oxygen Demand detection limit used in analysis
BOD EMC0	NUMBER	5	EMC for Biological Oxygen Demand in mg/l using (0)*
BOD EMC_dt	NUMBER	5	EMC for Biological Oxygen Demand in mg/l using (dt)**
TKN_dt	NUMBER	5	Total Kjeldahl Nitrogen detection limit used in analysis
TKN EMC0	NUMBER	5	EMC for Total Kjeldahl Nitrogen in mg/l using (0)*
TKN EMC_dt	NUMBER	5	EMC for Total Kjeldahl Nitrogen in mg/l using (dt)**
NITRATE+NITRITE_dt	NUMBER	5	Record Nitrate + Nitrite detection limit used in analysis
NITRATE+NITRITE EMC0	NUMBER	5	Enter EMC for Nitrate + Nitrite in mg/l using (0)*
NITRATE EMC_dt	NUMBER	5	Enter EMC for Nitrate + Nitrite in mg/l using (dt)**
TOTAL_PHOSPHORUS_dt	NUMBER	5	Record Total Phosphorus detection limit used in analysis
TOTAL_PHOSPHORUS EMC0	NUMBER	5	Enter EMC for Total Phosphorus in mg/l using (0)*
TOTAL_PHOSPHORUSEMC_dt	NUMBER	5	Enter EMC for Total Phosphorus in mg/l using (dt)**
TSS_dt	NUMBER	5	Total Suspended Solids detection limit used in analysis
TSS EMC0	NUMBER	5	EMC for Total Suspended Solids in mg/l using (0)*
TSS EMC_dt	NUMBER	5	EMC for Total Suspended Solids in mg/l using (dt)**
TOTAL_COPPER_dt	NUMBER	5	Record Total Copper detection limit used in analysis
TOTAL_COPPER EMC0	NUMBER	5	Enter EMC for Total Copper in ug/l using (0)*
TOTAL_COPPER EMC_dt	NUMBER	5	Enter EMC for Total Copper in ug/l using (dt)**
TOTAL_LEAD_dt	NUMBER	5	Record Total Lead detection limit used in analysis
TOTAL_LEAD EMC0	NUMBER	5	Enter EMC for Total Lead in ug/l using (0)*
TOTAL_LEAD EMC_dt	NUMBER	5	Enter EMC for Total Lead in ug/l using (dt)**
TOTAL_ZINC_dt	NUMBER	5	Record Total Zinc detection limit used in analysis
TOTAL_ZINC EMC0	NUMBER	5	Enter EMC for Total Zinc in ug/l using (0)*
TOTAL_ZINC EMC_dt	NUMBER	5	Enter EMC for Total Zinc in ug/l using (dt)**
HARDNESS_dt	NUMBER	5	Record detection limit used in analysis
HARDNESS EMC0	NUMBER	5	Enter EMC for Hardness in ug/l using (0)*
HARDNESS EMC_dt	NUMBER	5	Enter EMC for Hardness in ug/l using (dt)**
TPH_dt	NUMBER	5	Record detection limit used in analysis
TPH EMC0	NUMBER	5	EMC for Total Petroleum Hydrocarbons in mg/l using (0)*
TPH EMC_dt	NUMBER	5	EMC for Total Petroleum Hydrocarbon in mg/l using (dt)**
ENTEROCOCCI_dt	NUMBER	5	Record detection limit used in analysis
ENTEROCOCCI EMC0	NUMBER	5	EMC for enterococci in MPN/100 using (0)*
ENTEROCOCCI EMC_dt	NUMBER	5	EMC for enterococci in MPN/100 using (dt)**
ECOLI_dt	NUMBER	5	Record E. Coli detection limit used in analysis
ECOLI EMC0	NUMBER	5	Enter EMC for E. Coli in MPN/100ml using (0)*
ECOLI EMC_dt	NUMBER	5	Enter EMC for E. Coli in MPN/100ml using (dt)**
LOCAL_CONCERN1_dt	NUMBER	5	Record detection limit used in analysis
LOCAL_CONCERN1 EMC0	NUMBER	5	Enter EMC for in mg/l using (0)*
LOCAL_CONCERN1 EMC_dt	NUMBER	5	Enter EMC for in mg/l using (dt)**
LOCAL_CONCERN2_dt	NUMBER	5	Record detection limit used in analysis
LOCAL_CONCERN2 EMC0	NUMBER	5	Enter EMC for in mg/l using (0)*
LOCAL_CONCERN2 EMC_dt	NUMBER	5	Enter EMC for in mg/l using (dt)**
LOCAL_CONCERN3_dt	NUMBER	5	Record detection limit used in analysis
LOCAL_CONCERN3 EMC0	NUMBER	5	Enter EMC for in mg/l using (0)*
LOCAL_CONCERN3 EMC_dt	NUMBER	5	Enter EMC for in mg/l using (dt)**
GEN_COMNT	TEXT	50	Monitoring comments/documentation

**key:**     **mg/l** = milligrams per liter     **ug/l** = micrograms per liter     **MPN** = most probable number per 100 milliliters

\* **EMC (0)** = Flow weighted averages for three discrete samples representative of a storm using zero (0) for any discrete samples recorded less than the detection limit.

**\*\* EMC (dt)** = Flow weighted averages for three discrete samples representative of a storm using the detection limit value (dt) for any discrete samples recorded less than the detection limit.

#### **G. Pollutant Load Reductions Associated with GIS Coverage (PART III.E.4. and III.F.1.)**

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
TN_RUNOFF	NUMBER	10	(TKN) + (Nitrate + Nitrite) load before treatment (lbs/year)
TN_CONTROLLED	NUMBER	10	(TKN) + (Nitrate + Nitrite) treated by BMPs (lbs/year)
TP_RUNOFF	NUMBER	10	TP load before treatment (lbs/year)
TP_CONTROLLED	NUMBER	10	TP treated by BMPs (lbs/year)
TSS_RUNOFF	NUMBER	10	TSS load before treatment (lbs/year)
TSS_CONTROLLED	NUMBER	10	TSS treated by BMPs (lbs/year)

#### **G.1. Additional Pollutants - Use for Multiple Pollutant Entries**

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
POLLUTANT	TEXT	20	Identify additional pollutants for impaired water (TMDLs)
WLA_RUNOFF	NUMBER	10	WLA for an approved TMDL before treatment (lbs/year)
WLA_CONTROLLED	NUMBER	10	Waste load for an approved TMDL treated by BMPs (lbs/year)

#### **H. Biological and Habitat Monitoring (PART III.F.1.)**

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
STATION	TEXT	30	Unique station ID
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 Meters) Northing
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 Meters) Easting
DRAIN_AREA	NUMBER	8	Drainage area in acres
BIBI	NUMBER	4	Benthic index of biological indicators
EMBEDDEDNESS	NUMBER	4	Rapid bioassessment protocol score for embeddedness
EPIFAUNAL	NUMBER	4	Rapid bioassessment protocol score for epifaunal
HABITAT	NUMBER	4	Rapid bioassessment protocol score for habitat
LAND_USE	NUMBER	3	Predominant land use <sup>2</sup>

<sup>2</sup> Use attached Maryland Office of Planning land use codes

#### **I. Illicit Discharge Detection and Elimination (PART III.D.3.)**

Column Name	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
OUTFALL_ID	TEXT	15	Unique outfall ID used in Section A. database
SCREEN_DATE	DATE/TIME	8	Field screening date
TEST_NUM	NUMBER	5	Initial screening, follow-up test, 3rd, etc.
LAST_RAIN	DATE/TIME	8	Date of last rain > 0.10"
TIME	DATE/TIME	8	Field screening time
OBSERV_FLOW	TEXT	3	Was flow observed? (yes/no)
CFS_FLOW	NUMBER	5	Flow rate in cubic feet per second (CFS)
WATER_TEMP	NUMBER	5	Water temperature (Fahrenheit)
AIR_TEMP	NUMBER	5	Air temperature in (Fahrenheit)



CHEM_TEST	TEXT	3	Was chemical test performed? (yes/no)
pH	NUMBER	5	pH meter reading
PHENOL	NUMBER	5	Milligrams per Liter (mg/l)
CHLORINE	NUMBER	5	mg/l
DETERGENTS	NUMBER	5	mg/l
COPPER	NUMBER	5	mg/l
ALGAEGROW	TEXT	3	Was algae growth observed? (yes/no)
ODOR	TEXT	2	Type of odor <sup>4</sup>
COLOR	TEXT	2	Discharge color <sup>4</sup>
CLARITY	TEXT	2	Discharge clarity <sup>4</sup>
FLOATABLES	TEXT	2	Floatables in discharge <sup>4</sup>
DEPOSITS	TEXT	2	Deposits in outfall area <sup>4</sup>
VEG_COND	TEXT	2	Vegetative condition in outfall area <sup>4</sup>
STRUCT_COND	TEXT	2	Structural condition of outfall <sup>4</sup>
EROSION	TEXT	2	Erosion in outfall area <sup>4</sup>
COMPLA_NUM	TEXT	3	Is screening complaint driven? (yes/no)
ILLCIT_Q	TEXT	3	Was illicit discharge found? (yes/no)
ILLCIT_ELIM	TEXT	3	Was illicit discharge eliminated? (yes/no)

<sup>4</sup> Use Attached Pollution Prevention Activities Codes

#### J. Responsible Personnel Certification Information (PART III.D.2.)

Column Name	Data Type	Length	Description*
PREFIX	TEXT	2	Mr, Ms
FIRSTNAME	TEXT	15	First name
LASTNAME	TEXT	15	Last name
ADDRESS	TEXT	50	Full address
CITY	TEXT	15	City
STATE	TEXT	2	State
ZIP	NUMBER	10	Zip code
DATE	DATE/TIME	8	Date of class
PHONE	NUMBER	10	Phone number
CERT_NUM	NUMBER	6	Certification number as provided by MDE
COMPANY	TEXT	30	Employer
INSTRUCTOR	TEXT	20	Instructor's last name

\* Do not use all caps

#### K. Quarterly Grading Permit Information Associated with GIS Coverage (PART III.D.2.)

Column Name	Data Type	Length	Description
SITE_NAME	TEXT	60	Construction site name
SITE_OWNER	TEXT	60	Construction site owner
OWNER_ADDRESS	TEXT	50	Owner address
OWNER_CITY	TEXT	15	Owner address
OWNER_ZIP	NUMBER	10	Owner zip code
SITE_ADDRESS	TEXT	50	Site address
SITE_CITY	TEXT	15	Site address
SITE_ZIP	NUMBER	10	Site zip code
MD_NORTH	NUMBER	8	Maryland grid coordinate (NAD 83 meters) – site
MD_EAST	NUMBER	8	Maryland grid coordinate (NAD 83 meters) – site
WATERSHED_CODE	NUMBER	20	Maryland 8 or 12-digit hydrologic unit code
DIST_AREA	NUMBER	8	Disturbed area of site in acres <sup>1</sup>
GRAD_PERMIT	TEXT	50	Local grading permit number

APPR_DATE	DATE/TIME	8	Grading Permit approval date
LAND_USE	NUMBER	3	Predominant land use <sup>2</sup> (built)

<sup>1</sup> GIS shapefile required

<sup>2</sup> Use attached Maryland Office of Planning land use codes

#### L. Fiscal Analyses (PART III.G.)

Permit Condition	Data Type	Length	Description
YEAR	NUMBER	4	Annual report year
LEGAL_AUTH	NUMBER	13	Total annual cost for legal authority
SOURCE_ID	NUMBER	13	Total annual cost for source ID
SW_MANAGEMENT	NUMBER	13	Total annual cost for stormwater management
EROS_SED_CON	NUMBER	13	Total annual cost for erosion and sediment
ILLICIT_DET/ELIM	NUMBER	13	Total annual cost for illicit det/elimination
TRASH_ELIM	NUMBER	13	Total annual cost for trash elimination
PROP_MANAGEMENT	NUMBER	13	Total annual cost for property management
INLET_CLEAN	NUMBER	13	Total annual cost for inlet cleaning
STRT_SWEEP	NUMBER	13	Total annual cost for street sweeping
RD_MAINT_OTHER	NUMBER	13	Total annual cost for road maintenance - other
PUB_EDUCATION	NUMBER	13	Total annual cost for public education
WATERSHED_ASSESS	NUMBER	13	Total annual cost for watershed assessment
WATERSHED_RESTOR	NUMBER	13	Total annual cost for watershed restoration
CHEM_MON_ASSESS	NUMBER	13	Total annual cost for chemical monitoring
BIO_MON_ASSESS	NUMBER	13	Total annual cost for biological monitoring
PHYS_STRM_ASSESS	NUMBER	13	Total annual cost for physical assessment
MANUAL_MON	NUMBER	13	Total annual cost for design manual monitoring
TMDL_ASSESS	NUMBER	13	Total annual cost for tmdl assessment
TOTAL_NPDES_FUNDS	NUMBER	13	Total annual cost for total npdes program

## <sup>2</sup>MDP Land Use/Land Cover

### 10 Urban Built-up

- **11 Low Density Residential** – Detached single family/duplex dwelling units, yards, and associated areas. Areas of more than 90 percent single family/duplex dwelling units, with lot sizes less than five acres but at least one-half acres (.2 dwelling units/acre to 2 dwelling units/acre).
- **12 Medium Density Residential** – Detached single family/duplex, attached single unit row housing, yards, and associated areas. Areas of more than 90 percent single family/duplex units and attached single unit row housing, with lot sizes of less than one-half acre but at least one-eighth acre (2 dwelling units/acre to 8 dwelling units/acre).
- **13 High Density Residential** – Attached single unit row housing, garden apartments, high rise apartments/condominiums, mobile home and trailer parks. Areas of more than 90 percent high density residential units, with more than 8 dwelling units/acre.
- **14 Commercial** – Retail and wholesale services. Areas used primarily for the sale of products and services, including associated yards and parking areas.
- **15 Industrial** – Manufacturing and industrial parks, including associated warehouses, storage yards, research laboratories, and parking areas.
- **16 Institutional** – Elementary and secondary schools, middle schools, junior and senior high schools, public and private colleges and universities, military installations (built-up areas only, including buildings and storage, training, and similar areas) churches and health facilities, correctional facilities, and government offices and facilities that are clearly separable from the surrounding land cover.
- **17 Extractive** – Surface mining operations, including sand and gravel pits, quarries, coal surface mines, and deep coal mines. Status of activity (active vs. abandoned) is not distinguished.
- **18 Open Urban Land** – Urban areas whose use does not require structures, or urban areas where non-conforming uses characterized by open land have become isolated. Included are golf courses, parks, recreation areas (except associated with schools or other institutions), cemeteries, and entrapped agricultural and undeveloped land within urban areas.
- **191 Large Lot Subdivision (Agriculture)** – Residential subdivisions with lot sizes less than 20 acres but at least 5 acres, with a dominant land cover of open fields or pasture.
- **192 Large Lot Subdivision (Forest)** - Residential subdivisions with lot sizes less than 20 acres but at least 5 acres, with a dominant land cover of deciduous, evergreen or mixed forest.

### 20 Agriculture

- **21 Cropland** – Field and forage crops.
- **22 Pasture** – Land used for pasture, both permanent and rotated: grass.

- **23 Orchards/Vineyards/Horticulture** – Areas of intensively managed commercial bush and tree crops, including areas used for fruit production, vineyards, sod and seed farms, nurseries, and green houses.
- **24 Feeding Operations** – Cattle or hog feeding lots, poultry houses, and holding lots for animals, and commercial fishing areas (including oyster beds).
- **241 Feeding Operations** – Cattle or hog feeding lots, poultry houses, and holding lots for animals.
- **242 Agricultural Building** – Breeding and training facilities, storage facilities, built-up areas associated with a farmstead, small farm ponds, and commercial fishing areas.
- **25 Row and Garden Crops** – Intensively managed track and vegetable farms and associated areas.

#### **40 Forest**

- **41 Deciduous Forest** – Forested areas in which the trees characteristically lose their leaves at the end of the growing season. Included are such species as oak, hickory, aspen, sycamore, birch, yellow poplar, elm, maple, and cypress.
- **42 Evergreen Forest** - Forested areas in which the trees are characterized by persistent foliage throughout the year. Included are such species as white pine, pond pine, hemlock, southern white cedar, and red pine.
- **43 Mixed Forest** – Forested areas in which neither deciduous or evergreen species dominate, but in which there is a combination of both types.
- **44 Brush** – Areas that do not produce timber or other wood products but may have cut-over timber stands, abandoned agriculture fields, or pasture. These areas are characterized by vegetation types such as sumac, vines, rose, brambles, and tree seedlings.

**50 Water** – Rivers, waterways, reservoirs, ponds, bays, estuaries, and ocean.

**60 Wetlands** – Forested and non-forested wetlands, including tidal flats, tidal and non-tidal marshes, and upland swamps and wet areas.

#### **70 Barren Land**

- **71 Beaches** – Extensive shoreline areas of sand and gravel accumulation, with no vegetative cover or other land use.
- **72 Bare Exposed Rock** – Areas of bedrock exposure, scarps, and other natural accumulations of rock without vegetative cover.

**73 Bare Ground** – Areas of exposed ground caused naturally, by construction, or other cultural processes.



<sup>3</sup> Glossary of Stormwater BMP Structure Types and Practices Reported to MDE

Structural BMPs			
Structure Type	Code	Structure Function	Chesapeake Bay Program Classification
Artificial Wetlands (See Shallow Marsh also)	SM	A structure with a permanent shallow pool planted with wetland vegetation often designed to provide extended detention.	Wet Pond & Wetlands
Attenuation swale or dry swale	SW	Open drainage channel designed to detain and promote the filtration of stormwater runoff through underlying fabricated soil media (see Grassed Swale or SW).	Filtering Practice
Bio-retention	BR	Landscape designed such that stormwater runoff collects in shallow depressions before filtering through fabricated planting soil media .	Filtering Practice
Check Dam	CD	A small dam constructed in a gully or other small waterway to decrease flow velocity (by reducing the channel gradient), minimize scour, & promote deposition of sediment.	Filtering Practice
Detention Structure (Dry Pond)	DP	Designed to store runoff without a permanent pool.	Dry Detention Pond & Hydrodynamic Structure
Dry Well	DW	An infiltration trench variant designed to exclusively accommodate rooftop runoff.	Infiltration Practice
Extended Detention Structure (Two types):	ED	Designed to temporarily detain a portion of runoff for 24 hrs after a storm using a fixed orifice to regulate outflow at a specific rate, allowing solids & associated time to settle out.	Dry Extended Detention Pond
Extended Detention Structure, Dry	EDSD	Designed for the temporary storage of runoff associated with at least a 24 hr 1-year storm without creating a permanent pool of water.	Dry Extended Detention Pond
Extended Detention Structure, Wet	EDSW	Designed for the storage of runoff associated with at least a 24 hr 1-year storm. The detained water drains partially & the remaining portion creates a permanent pool .	Dry Extended Detention Pond or Wet Pond & Wetlands
Filter Strip	FS	Vegetated land designed to intercept sheet flow from upstream development.	Filtering Practice
Flow Splitter	FISp	Hydraulic structure designed either to divert a portion of stream flow to a BMP located away from a channel, direct stormwater to a parallel pipe system or bypass a portion of base flow around a pond .	Not a WQ BMP
Flood Management Area	FLOOD	10 year storm overbank flood protection	Not a WQ BMP
Forebay	FOREBAY	Storage structure adjoining a SWM BMP inlet designed to trap coarse sediments and thereby lessen their accumulation in the main treatment area .	Dry Detention Pond & Hydrodynamic Structure
Gabion	GABION	A large rectangular box made of heavy gauge wire mesh which holds cobbles and boulders for changing stream flow patterns, bank stabilization, and erosion control.	Filtering Practice
Grass Swale	SW	Open vegetated channel used to convey runoff and provide treatment by filtering pollutants and sediment.	Filtering Practice
Hydrodynamic Structure such as 1) Oil grit separator 2) Bay Saver® 3) Stormceptor®	OGS BS SC	An engineered structure used to separate sediments and oils from stormwater runoff using gravitational separation and/or hydraulic flow.	Dry Detention Pond & Hydrodynamic Structure
Infiltration Basin	IB	Designed to allow stormwater to infiltrate into permeable soils. It differs from a retention structure in that it may include a back-up underdrain pipe to ensure eventual removal of standing water.	Infiltration Practice



Infiltration Trench (Three types):	IT	An excavated trench that has been backfilled with exposed or unexposed stones to form an underground reservoir (Also see Dry Well).	Infiltration Practice
Complete Exfiltration	ITCE	Runoff can only exit the trench by exfiltrating through the stone reservoir into the underlying soil	
Partial Exfiltration	ITPE	Runoff exits the trench by exfiltrating a) through the stone reservoir into the underlying soil, and b) via a perforated underdrain at the bottom of the trench that diverts runoff to a central outlet.	
Water Quality Exfiltration	ITWQE	Storage volume is set to receive only the first $\frac{1}{2}$ " of runoff (first flush) from an impervious area of the watershed.	
Landscape	LANDSCAPE	Impervious area reduction (Thus far, only Prince Georges County has submitted reports of this practice).	Filtering Practice
Level Spreader	LS	A device for distributing stormwater uniformly over the ground surface as sheet flow to prevent concentrated, erosive flow and promote infiltration.	Infiltration Practice
Micropool (Reported by various jurisdictions before the standardization of codes)	MP	A smaller permanent pool used in a stormwater pond to mitigate the thermal impacts of a larger pond, impacts on existing wetlands, or compensate for lack of topographic relief.	Wet Pond & Wetlands
Observation well	OBS_WELL	A test well installed in an infiltration trench to monitor draining time after installation.	Not a SWM BMP - Observation Well
Other	OTH	A stormwater facility that is known to have been implemented but whose type cannot definitively be identified at the time of submitting a Notice of Construction Completion report to MDE.	Defaults to Dry Detention Pond & Hydrodynamic Structure, evaluated as the least efficient class of facilities in removing TSS, TN, and TP from stormwater runoff.
Porous Pavement	PP	A porous asphalt surface designed to have bearing strength similar to conventional asphalt but provides a rapid conduit for runoff to reach a subsurface stone reservoir.	Infiltration Practice
Retention Pond (See Wet Pond/WP)	WP	A structure with a permanent pool of water for treating incoming storm runoff.	Wet Pond & Wetlands
Sand Filter	SF	A bed of sand to which the first flush of runoff is diverted. Water leaving the filter is collected in underground pipes & returned to a waterway. A layer of peat, limestone, and/topsoil may be added to improve removal efficiency.	Filtering Practice
Shallow Marsh	SM	A structure with a permanent shallow pool planted with wetland vegetation often designed to provide extended detention.	Wet Pond & Wetlands
Underground Storage	UGS	Vault like structure designed for the temporary storage of storm flow.	Dry Detention Pond & Hydrodynamic Structure
Vegetated Buffer	VB	A vegetated protective zone of variable width located along both sides of a waterway.	Filtering Practice
Water Quality Inlet	OGS	See Hydrodynamic Structure-Oil Grit Separator.	Dry Detention Pond & Hydrodynamic Structure
Wet Pond	WP	A structure with a permanent pool of water for treating incoming storm runoff.	Wet Pond & Wetlands

Environmental Site Design Practices			
Practice Type	Code	Function	Chesapeake Bay Program Classification
<u>Environmental Site Design</u> -- alternative surfaces, non-structural and micro-scale practices may be grouped as a comprehensive stormwater design system and identified singly as ESD.	ESD	A comprehensive design strategy for maintaining predevelopment runoff characteristics and protecting natural resources is available. This strategy relies on integrating site design, natural hydrology, and smaller controls to capture and treat runoff.	Stormwater to the MEP
Alternative Surfaces			
1) Green Roof	ESDGR	Alternative surface used in place of traditional flat or pitched roofs to reduce runoff.	Stormwater to the MEP
2) Permeable Pavements	ESDPERMP	Any of the available materials that are used to replace traditional pavements (e.g., asphalt, concrete) and reduce runoff.	
3) Reinforced Turf	ESDRTRF	Grassed or gravel area with open, load-bearing matrix for structural integrity.	
Nonstructural Practices			
1) Disconnection of Rooftop Runoff	ESDRTD	Rooftop runoff is disconnected and then directed to a pervious area where it either infiltrates or is filtered.	Stormwater to the MEP
2) Disconnection of Non-Rooftop Runoff	ESDNRTD	Runoff from surface impervious areas is disconnected and then directed to a pervious area where it either infiltrates or is filtered. Examples: Overland sheetflow, permeable pavers, rain gardens and small scale filters.	
3) Sheetflow to Conservation Areas	ESDSFNAC	Runoff is discharged to a natural conservation or buffer area (e.g. stream buffers, forest buffers) through overland flow.	
Micro-Scale Practices			
1) Rainwater Harvesting	ESDRH	These practices intercept and store rainfall for future use.	Stormwater to the MEP
2) Submerged Gravel Wetlands	ESDSGW	Small-scale filter using wetland plants and a gravel media to provide treatment.	
3) Landscape Infiltration	ESDIL	Combination of landscape features with infiltration practices.	
4) Infiltration Berms	ESDIB	Series of small berms used in sloped areas to detain, infiltrate, and filter runoff.	
5) Dry Wells	ESDDW	An infiltration trench variant designed to exclusively accommodate rooftop runoff.	
6) Micro-Bioretenention	ESDMB	Small, vegetated filter used to capture and treat runoff from adjacent impervious areas.	
7) Rain Gardens	ESDRG	Shallow landscaped feature used to detain and filter runoff and used primarily in residential applications.	
8) Swales	ESDSW	Channels that provide conveyance, water quality treatment and flow attenuation of runoff. Variants include the grassed swale, bio-swale, and wet swale.	
9) Enhanced Filters	ESDEF	A modification applied to other filters that increase nutrient removal and groundwater recharge.	

**Alternative MS4 BMPs**

Practice Type	Code	Description	Chesapeake Bay Program Classification
Mechanical Street Sweeping	MSS	Removes the buildup of pollutants that have been deposited along the street or curb using a mechanical sweeper truck	Street Sweeping, Mechanical
Regenerative/Vacuum Street Sweeping	VSS	Removes the buildup of pollutants that have been deposited along the street or curb using a vacuum-assisted sweeper truck	Street Sweeping, Regenerative
Nutrient Management	NM	Comprehensive nutrient management plan for reducing and or eliminating fertilizer use	Nutrient Management
Grass/Meadow Buffers	GMB	An area of trees at least 35 feet wide on one side of a stream, usually accompanied by infrequently-mowed grass, meadow flora species, and other vegetation that is adjacent to a body of water	Urban Grass/Meadow Buffers
Forest Buffers	FB	An area of trees at least 35 feet wide on one side of a stream, usually accompanied by trees, shrubs, and other vegetation that is adjacent to a body of water	Urban Forest Buffers
Impervious Surface Elimination (to Pervious)	IMPP	Pollutant load reduction expected when land cover is converted from impervious to pervious	Land Cover Change
Impervious Surface Elimination (to Forest)	IMPF	Pollutant load reduction expected when land cover is converted from impervious to forest	Land Cover Change
Planting Trees or Forestation on Pervious Urban	FPU	100 trees per acre or greater is necessary with at least 50% of the trees being 2 inches or greater in diameter at 4 ½ feet above ground level (an aggregate of smaller sites may be used)	Land Cover Change
Catch Basin Cleaning	CBC	Routine cleanouts performed on targeted infrastructure that have high accumulation rates	Street Sweeping
Storm Drain Vacuuming	SDV	Routine vacuuming performed on targeted infrastructure that has high accumulation rates	Street Sweeping
Stream Restoration	STRE	Stream restoration includes re-establishing a stable channel; reconnecting the stream with the floodplain; introducing habitat features such as step-pools, woody debris, or riparian vegetation; and integrating structural approaches such as rock walls or riprap.	Urban Stream Restoration
Shoreline Stabilization	SHST	These practices apply to the shoreline of the Chesapeake and Atlantic Coastal Bays and tidal rivers. Nonstructural practices or living shorelines include tidal marsh creation and beach nourishment; structural practices include stone revetments, breakwaters, or groins.	Shoreline Stabilization
Septic Pumping	SEPP	Implementation of septic system pumping	Septic Pumping
Septic Denitrification	SEPD	Implementation of enhanced denitrification technology	Septic Denitrification
Septic Connections to WWTP	SEPC	Removal of septic system and waste stream connection made to a waste water treatment plant.	Septic Connection to WWTP
Education	EDU	Education	To Be Determined
Sub-Soiling	SUB	Sub-Soiling	To Be Determined
Trash Removal	TRA	Trash Removal	To Be Determined
Pet Waste Management	PET	Pet Waste Management	To Be Determined
Outfall Stabilization	OUTS	Outfall Stabilization	To Be Determined
Floodplain Restoration	FPRES	Floodplain Restoration	To Be Determined
River Bank Stabilization	RBS	River Bank Stabilization	To Be Determined
Bio-Reactor Carbon Filter	BRCF	Bio-Reactor Carbon Filter	To Be Determined
Disconnection of Illicit Discharges	DID	Disconnection of Illicit Discharges	To Be Determined



Alternative MS4 BMPs (Continued)			
Practice Type	Code	Description	Chesapeake Bay Program Classification
Step Pool Storm Conveyance	SPSC	Step Pool Storm Conveyance; if used as a filtration practice, the pollutant removal efficiencies for micro-bioretenment can be applied to the drainage area treated.	To Be Determined

Policy Decision			
Policy	Code	Description	Chesapeake Bay Program Classification
Exemption	EXEMPT	Land development activities that are not subject to the stormwater management requirements.	Not a SWM BMP
Variance	VARIANCE	A modification of the minimum stormwater management requirement if site conditions are such that strict adherence to the Guidelines would impose unnecessary hardship on the applicant without fulfilling the intent of the Guidelines.	Not a SWM BMP
Waiver	WAIVER	Exemption from stormwater management requirements granted to an applicant for a specific project based on a review by MDE.	Not a SWM BMP

#### <sup>4</sup>**Pollution Prevention Activities Codes**

- 21. ODOR:** None(N), Sewage (SE), Sulfur (S), Oil (IL), Gas (G), Rancid-Sour (RS), Other (O)
- 22. COLOR:** Clear (C), Yellow (Y),Brown (B), Green (GR), Red (R), Gray (G), Other (O)
- 23. CLARITY:** Clear (C), Opaque (OP), Cloudy (CD), Other (O)
- 24. FLOATABLES:** None (N), Oil Sheen (OS), Sewage (SE), Trash (T), Other (O)
- 25. DEPOSITS:** None (N), Sediment (S), Oil (IL), Other (O)
- 26. VEG\_COND.:** Normal (N), Excessive Growth (EG), Inhibited Growth (IG), Other (O)
- 27. STRUCT\_COND:** Normal (N), Concrete Cracking (CC), Concrete Spalling (SP), Other (O)
- 28. EROSION:** None (N), Moderate (M), Severe (S)

### **<sup>5</sup>Unique Structure Identification Codes**

Each stormwater best management structure or water quality improvement project will need a unique identification code. For management of these data Statewide it is necessary that these codes also indicate the jurisdiction where they are implemented. Please use the County, City, or State abbreviations listed below as part of each structures unique identification code.

Anne Arundel County	AA
Baltimore City	BC
Baltimore County	BA
Carroll County	CA
Charles County	CH
Frederick County	FR
Harford County	HA
Howard County	HO
Prince George's County	PG
Montgomery County	MO
Maryland State Highway Administration	SHA

**Attachment B**  
**EPA Approved Total Maximum Daily Loads (TMDLs)**  
**Prince George's County**

This NPDES permit requires Prince George's County to submit an annual TMDL assessment report evaluating the effectiveness of the County's restoration plans and progress made in achieving compliance with EPA approved TMDLs. Similarly, by regulation at 40 CFR §122.44, EPA further requires that stormwater controls and programs implemented pursuant to this NPDES permit be consistent with applicable WLAs developed under any approved TMDLs. The following is a list of approved TMDLs applicable to Prince George's County:

Basin Name	8-digit Basin Number	Impairment	Current Status	YEAR
Chesapeake Bay Mainstem 5 Mesohaline (Goose Creek)	02131101	Bacteria	Approved	2005
Chesapeake Bay Mainstem 5 Mesohaline (Harper and Pearsons Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Cuckhold Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Indian Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Island Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Mill Creek)	02131101	Bacteria	Approved	2009
Patuxent River Mesohaline (Solomons Island Harbor)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (St. Thomas Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Town Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Trent Hall Creek)	02131101	Bacteria	Approved	2005
Patuxent River Mesohaline (Washington and Persimmons Creek)	02131101	Bacteria	Approved	2005
Patuxent River Lower (Lake Lariat)	02131101	Mercury	Approved	2004
Western Branch Tidal Fresh	02131103	Nutrients	Approved	2000
Patuxent River Upper	02131104	Bacteria	Approved	2011
Cash Lake	02131104	Mercury	Approved	2011
Patuxent River Upper	02131104	Sediments	Approved	2011
Rocky Gorge Dam	02131107	Nutrients	Approved	2008
Potomac River Oligohaline (Potomac River Middle Tidal)	02140102	PCBs	Approved	2007
Mattawoman Creek Tidal Fresh	02140111	Nutrients	Approved	2005
Mattawoman Creek Tidal Fresh	02140111	Nutrients	Approved	2005
Potomac River Oligohaline (Potomac River Upper Tidal)	02140201	PCBs	Approved	2007

Piscataway Creek	02140203	Bacteria	Approved	2007
Anacostia River (above confluence of NEB and NWB)	02140205	Bacteria	Approved	2006
Anacostia River Tidal Fresh	02140205	Bacteria	Approved	2006
Anacostia River	02140205	Nutrients	Approved	2008
Anacostia River	02140205	Nutrients	Approved	2008
Anacostia River	02140205	Nutrients	Approved	2008
Anacostia River Tidal Fresh	02140205	Nutrients	Approved	2008
Anacostia River Tidal Fresh	02140205	Nutrients	Approved	2008
Anacostia River Tidal Fresh	02140205	Nutrients	Approved	2008
Anacostia River (above confluence of NEB and NWB)	02140205	PCBs	Approved	2011
Anacostia River Tidal Fresh	02140205	PCBs	Approved	2007
Anacostia River	02140205	Sediments	Approved	2007
Anacostia River Tidal Fresh	02140205	Sediments	Approved	2007
Anacostia River	02140205	Trash/Debris	Approved	2010
Anacostia River Tidal Fresh	02140205	Trash/Debris	Approved	2010
Anacostia River Tidal Fresh	02140205	Nutrients	Approved (Bay TMDL)	2010
Anacostia River Tidal Fresh	02140205	Nutrients	Approved (Bay TMDL)	2010
Anacostia River Tidal Fresh	02140205	Sediments	Approved (Bay TMDL)	2010
Mattawoman Creek Tidal Fresh	02140111	Nutrients	Approved (Bay TMDL)	2010
Mattawoman Creek Tidal Fresh	02140111	Nutrients	Approved (Bay TMDL)	2010
Mattawoman Creek Tidal Fresh	02140111	Sediments	Approved (Bay TMDL)	2010
Patuxent River Mesohaline	02131101	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Mesohaline	02131101	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Mesohaline	02131101	Sediments	Approved (Bay TMDL)	2010
Patuxent River Oligohaline	02131101	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Oligohaline	02131101	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Oligohaline	02131101	Sediments	Approved (Bay TMDL)	2010
Patuxent River Tidal Fresh	02131102	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Tidal Fresh	02131102	Nutrients	Approved (Bay TMDL)	2010
Patuxent River Tidal Fresh	02131102	Sediments	Approved (Bay TMDL)	2010
Piscataway Creek Tidal Fresh	02140203	Nutrients	Approved (Bay TMDL)	2010
Piscataway Creek Tidal Fresh	02140203	Nutrients	Approved (Bay TMDL)	2010
Piscataway Creek Tidal Fresh	02140203	Sediments	Approved (Bay TMDL)	2010
Potomac River Mesohaline	02140101,	Nutrients	Approved	2010



	02140103, 02140105, 02140106, 02140107, 02140108		(Bay TMDL)	
Potomac River Mesohaline	02140101, 02140103, 02140105, 02140106, 02140107, 02140108	Nutrients	Approved (Bay TMDL)	2010
Potomac River Mesohaline	02140101, 02140103, 02140105, 02140106, 02140107, 02140108	Sediments	Approved (Bay TMDL)	2010
Potomac River Tidal Fresh	02140102, 02140201, 02140202, 02140204	Nutrients	Approved (Bay TMDL)	2010
Potomac River Tidal Fresh	02140102, 02140201, 02140202, 02140204	Nutrients	Approved (Bay TMDL)	2010
Potomac River Tidal Fresh	02140102, 02140201, 02140202, 02140204	Sediments	Approved (Bay TMDL)	2010
Western Branch Tidal Fresh	02131103	Nutrients	Approved (Bay TMDL)	2010
Western Branch Tidal Fresh	02131103	Nutrients	Approved (Bay TMDL)	2010
Western Branch Tidal Fresh	02131103	Sediments	Approved (Bay TMDL)	2010



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**CITY OF ROCKVILLE, MARYLAND  
MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4) PROGRAM  
INSPECTION REPORT**

ENVIRONMENTAL MANAGEMENT DIVISION  
DEPARTMENT OF PUBLIC WORKS  
20 COURTHOUSE SQUARE, SUITE 205  
ROCKVILLE, MD 20850

**Final Report Date: October 8, 2014**

**Field Activity Dates: November 5–6, 2013**

U.S. Environmental Protection Agency, Region III  
Water Protection Division  
Office of NPDES Enforcement (3WP42)  
1650 Arch Street  
Philadelphia, PA 19103

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## DOCUMENTS CITED IN REPORT

Shortened Name	Document Title and Date
EPA Records Request	List of documents that the EPA Inspection Team requested from the City on September 27, 2013
Permit	<i>National Pollutant Discharge Elimination System General Permit for Discharges from Small Municipal Separate Storm Sewer Systems, General Discharge Permit No. 03-IM-5500 (General NPDES Permit No. MDR05500), effective April 14, 2003</i>
City Response Inventory	Inventory of documents provided by the City in response to the EPA Records Request

## ACRONYMS AND ABBREVIATIONS USED IN REPORT

Abbreviation	Corresponding Term
BMP	best management practice
COMAR	Code of Maryland Regulations
DPW	Department of Public Works
EMD	Environmental Management Division
EPA	[United States] Environmental Protection Agency
ESD	Environmental site design
FOG	fats, oil, and grease
GIS	geographic information system
IDDE	illicit discharge detection and elimination
MDE	Maryland Department of the Environment
MS4	municipal separate storm sewer system
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
SOP	standard operating procedures
SWPPP	stormwater pollution prevention plan

## EXECUTIVE SUMMARY

From November 5 through 6, 2013, a compliance inspection team composed of staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, PG Environmental, LLC (collectively the EPA Inspection Team), inspected the municipal separate storm sewer system (MS4) program of the City of Rockville, Maryland (hereinafter, City).

The purpose of this inspection was to obtain information that will assist EPA in assessing the City's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program.

Based on the information obtained and reviewed, the EPA Inspection Team made several observations concerning the City's MS4 program related to the specific Permit requirements evaluated. Table 1 below summarizes the permit requirements and the observations made by the inspection team.

**Table 1. Summary of Permit Requirements and Inspection Observations**

Permit Requirement	Observations
Permit Section III.C (Illicit Discharge Detection and Elimination)	<p>Observation 1. The City has adopted the <i>Water Quality Protection</i> ordinance in Chapter 23.5 of the City code, which includes a prohibition of polluted discharges to the MS4. The ordinance includes definitions of violations and the penalties that can be assessed by the City for illicit discharges to the MS4.</p> <p>Observation 2. The City provided the EPA Inspection Team with a document titled <i>Spill Response Procedures, City of Rockville</i> (draft, updated November 12, 2009). The document provides response protocols for three types of spills: 1) oil and petroleum spills; 2) sewage spills; and 3) spills onto roadways and waterways. The document also provides a flow chart to follow as well as the appropriate information sheets for reporting. City representatives stated that training on the protocol was provided to Public Works Department staff as well as to other departments (e.g. police and fire departments) shortly after the November 12, 2009 update. It should be noted that the procedures were listed as a draft document. The EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guideline.</p>
Permit Section III.C.1 (MS4 Mapping)	<p>Observation 3. The City maintains a map of its storm sewer system in an electronic geographic information system (GIS)-based mapping program. The map includes MS4 components such as storm sewer pipes, inlets, outfalls, post-construction stormwater management facilities, and surface waters.</p>

Permit Requirement	Observations
Permit Sections III.C.3 and 4 (IDDE Procedures and Outfall Screening Field Component)	<p>Observation 4. The City has developed the <i>Illicit Discharge Detection and Elimination (IDDE) Program, Program Goals and Implementation Strategies</i> (draft, dated June 5, 2007) document, which states that the City's outfall inspection program is divided into two phases. The first phase includes walking the City's streams during dry weather to identify additional outfalls and to inspect for illicit discharges. The second phase will involve performing outfall inspections based on findings from phase I. It should be noted that the <i>Illicit Discharge Detection and Elimination (IDDE) Program, Program Goals and Implementation Strategies</i> was listed as a draft document. The EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guidelines.</p> <p>Observation 5. City representatives stated that since groundwater routinely flows through outlets during dry weather, the City has elected to put more focus on surveying and controlling the possible sources of illicit discharges than on outfall screening. A City inspector routinely performs drive-by, or "windshield," inspections of hot spot areas for potential sources of stormwater pollution. It should be emphasized that this occurs in addition to outfall screening.</p> <p>Observation 6. On November 5, 2013 the EPA Inspection Team shadowed the City's source control and fats, oils, and grease (FOG) inspectors on their routine inspections. Site visits included North Stone Avenue industrial area, South Lawn Industrial Park, Watts Branch Creek, and Woodmont Station. Specific observations regarding the site visits are included in the main body of the report.</p>
Permit Section III.D (Construction Site Stormwater Runoff Control)	<p>Observation 7. Pursuant to Code of Maryland Regulations (COMAR) 26.17.01.08, the City has adopted language into Chapter 19, Article V, division 3, section 19-95 of its City code which states that unless otherwise allowed, development and redevelopment projects must go through Natural Resource Inventory/Forest Stand Delineation Plan (NRI/FSD) approval, preliminary erosion and sediment control plan approval, sediment control construction plan approval, and sediment control permit issuance. City representatives stated that the plan review and approval process is primarily administered by the Engineering Division of the Department of Public Works.</p> <p>Observation 8. Pursuant to COMAR 26.17.01.06, the City provided certification and training completion records for the City's Erosion and Sediment Control Inspector.</p>

Permit Requirement	Observations
<p>Construction Site Visits Conducted as a Component of the Inspection</p>	<p>Observations 9–11.</p> <p>On November 6, 2013 the EPA Inspection Team conducted site visits to the Montgomery College Science East Building construction project, the Bainbridge Apartments construction project, and the 275 North Washington Street construction project. Specific observations regarding the site visits are included in the main body of the report.</p> <p>Observation 12. Based on observations made during the construction site visits, the EPA Inspection Team made several suggestions to the City for inspection program improvements. It should be restated that these are areas for possible program improvement and should not be viewed as violations of the Permit or COMAR.</p>
<p>Permit Section III.E (Post Construction Stormwater Management)</p>	<p>Observation 13. Pursuant to COMAR 26.17.02.04, the City has adopted Chapter 19 – <i>Sediment Control and Stormwater Management</i> (Ordinance No. 19-12) into its City code. Ordinance No. 19-12 defines requirements for permit acquisition, plan submittal and review, compliance inspections, as well as violations and enforcement. Further, the City has adopted the <i>City of Rockville Department of Public Works Sediment Control and Stormwater Management Regulations</i> (Resolution No. 21-12) as a supplement to Ordinance No. 19-12. Resolution No. 21-12 provides specific regulations and guidance for program elements defined in Ordinance No.19-12.</p> <p>Observation 14. The City provided maintenance and inspection report templates for various stormwater management facilities. The report templates also function as guidance documents/standard operating procedures (SOPs). The City provided another guidance document which described how to determine if repairs are needed for a best management practice (BMP) and what type of repairs may be required. It should be noted that the repair guidance document was a draft version. The EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guidelines.</p> <p>The City tracks post-construction BMP inspections and maintenance for privately owned stormwater facilities in an electronic database (<i>Inspector Software</i>). The City tracks routine maintenance, repair work, and inspections conducted on publicly owned facilities primarily through handwritten “Work Order Request” forms. According to City representatives, currently some public stormwater facilities are being tracked in the City’s electronic tracking system; however, the inventory is not complete. The EPA Inspection Team</p>

Permit Requirement	Observations
	suggested, as a program improvement, that the City inventory and track public stormwater facility inspections and maintenance in the electronic database, as they do with the privately owned facilities.
Post Construction Site Visits Conducted as a Component of the Inspection	<p>Observations 15 – 17.</p> <p>On November 6, 2013 the EPA Inspection Team conducted site visits to the King Farm underground sandfilter, the Redland Tech sandfilter and dry pond, and the City-owned pond at Tower Oaks Village. Specific observations regarding the site visits are included in the main body of the report.</p>
Permit Section III.F (Pollution Prevention and Good Housekeeping)	<p>Observation 18. The City provided a stormwater pollution prevention plan (SWPPP), dated September 2008, for the Gude Maintenance Facility, which is the City's primary maintenance facility. The EPA Inspection Team observed that facility and City team members were mostly unaware of the requirements of the SWPPP. Further, the facility has undergone significant site and stormwater management changes through construction and redevelopment since September 2008, requiring the SWPPP to be updated to reflect the current site status.</p> <p>In addition to the Gude Maintenance Facility SWPPP, the City also provided a draft version of a proposed training presentation, titled <i>Gude Good Housekeeping</i>. City representatives stated that they are planning to present the training to applicable staff by the end of 2013.</p>
Municipal Operations Facility Site Visits Conducted as a Component of the Inspection	<p>Observations 19 – 21.</p> <p>On November 6, 2013 the EPA Inspection Team conducted three site visits at municipally owned facilities within the jurisdictional boundaries of the City's MS4: 1) the Gude Maintenance Facility; 2) the Recreation and Parks Services Facility; and 3) the Hunting Hill Water Tower and Salt Shed. Specific observations regarding the site visits are included in the main body of the report.</p>



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## INTRODUCTION

From November 5 through 6, 2013, a compliance inspection team composed of staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, PG Environmental, LLC, (collectively the EPA Inspection Team) inspected the municipal separate storm sewer system (MS4) program of the City of Rockville, Maryland (City or Permittee). Discharges from the City's MS4 are regulated by the Maryland Department of Environment (MDE) *General Permit for Discharges of Stormwater from Small Municipal Separate Storm Sewer Systems*, General Discharge Permit No. 03-IM-5500 (General National Pollutant Discharge Elimination System (NPDES) Permit No. MDR055500; hereinafter, the Permit), effective April 14, 2003. The Permit was set to expire on April 14, 2008, but has been extended by MDE until a new Permit is issued. A copy of the current Permit is included as Attachment 1. A copy of the City's original MS4 Notice of Intent (NOI), which contains descriptions of measures for program compliance, is included as Attachment 2.

The purpose of this inspection was to obtain information that will assist EPA in assessing the City's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program. The inspection schedule is presented in Attachment 3.

The EPA Inspection Team obtained its information through a series of interviews with representatives from the City, along with a series of site visits, record reviews, and field verification activities. The primary representatives involved in the inspection were the following:

City Representatives: Mr. Mark Charles, Chief of Environmental Management, Department of Public Works (DPW), Environmental Management Division (EMD)  
Ms. Heather Gewandter, Stormwater Manager, DPW, EMD  
Mr. Arthur Ray, Environmental Policy Analyst, DPW, EMD  
Ms. Audra Lew, Erosion and Sediment Control Inspector, DPW, EMD  
Ms. Lise Soukup, Environmental Engineer, DPW, EMD  
Mr. Steve Davis, Source Control Inspector, DPW, EMD  
Ms. Wendy Blackman, Fats, Oils, and Grease (FOG) Inspector, DPW, EMD

EPA Representatives: Mr. Andrew Dinsmore, EPA Region 3  
Mr. Chuck Schadel, EPA Region 3

EPA Contractors: Mr. Max Kuker, PG Environmental, LLC  
Ms. Candice Owen, PG Environmental, LLC  
Mr. Jake Albright, PG Environmental, LLC

For a more complete list of inspection participants, please refer to the sign-in sheets in Attachment 4.

## **CITY OF ROCKVILLE BACKGROUND**

The City has been developing and implementing its MS4 Program since 2003. The City's coverage under the current MDE general permit became effective on October 1, 2003 with an expiration date of April 14, 2008. As mentioned previously, coverage under the Permit has been administratively extended. At the time of the inspection, the City was in MS4 permit year 11 (i.e., October 2012 to November 2013), and the City's MS4 Program was operating under its MS4 Program Plan established in June 2003 and updated annually.

The City encompasses approximately 13.5 square miles within the Rock Creek watershed and the total population of the City is about 62,000 people. The City's MS4 discharges into various tributaries to the Potomac River, including Rock Creek and Watts Branch Creek.

According to the City representatives, the City funds its stormwater program through a dedicated stormwater enterprise fund with contributions coming from a stormwater utility fee and other sources such as fines and permit fees. The stormwater utility fee, which became effective in 2009, contributes approximately \$3.6 million to the enterprise fund annually. The dedicated stormwater enterprise fund was established in 1978.

## **INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS**

During the inspection, the EPA Inspection Team obtained documentation and other supporting evidence regarding compliance with the Permit. Pertinent information may have been obtained prior to, and/or after, meeting with City staff during the physical inspection, and is presented in this report as observations. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation.

All referenced documentation used as supporting evidence is provided in Attachment 5, Exhibit Log, and photograph documentation is provided in Attachment 6, Photograph Log.

Before the inspection, the EPA Inspection Team formally requested that the City provide specific documentation for review prior to and at the time of the inspection. The EPA Inspection Team provided the City with a written list of requested records on September 27, 2013 (EPA Records Request). The City made numerous documents available to the EPA Inspection Team during the inspection and subsequent to the inspection provided a completed table in response to the records request (hereinafter, City Response Inventory; see Attachment 7).

The report below describes and outlines Permit requirements with specific sections cited, the related requirements, and observations made during the inspection. The format of the report follows the numeric system used in the Permit and is sequential. Sections of the Permit are restated with the observations concerning those requirements listed below.

Dry weather conditions were experienced throughout the inspection activities.

### MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM

**Permit Section III.C (Illicit Discharge Detection and Elimination)** – The Permit requires the City to develop, implement, and maintain a program to identify and eliminate illicit storm drain system connections and non-stormwater discharges to the maximum extent practicable. The Permit requires the program to include field screening activities for storm drain system outfalls, storm drain system inspections for the purpose of identifying the source of any illicit discharges, elimination of any illegal connection or illicit discharge to the storm drain system, and enforcement of penalties where appropriate. Permit Section III.C also requires the illicit discharge program to contain components to address illegal dumping and spills.

**Observation 1:** Pursuant to Permit Section III.C, the City adopted a *Water Quality Protection Ordinance* in Chapter 23.5 of the City code (see Attachment 5, Exhibit 1), which includes a prohibition of polluted discharges to the MS4. Specifically, Section 23.5-11(a) of the City code prohibits the discharge of pollutants to City waterways or storm drain system; and the construction, use, and maintenance or continued existence of connections to the storm drainage system without specific written approval from the Administrative Authority. Section 23.5-11(a)1-14 of the City code provides a listing of specific cases where discharges may be considered to be illicit or illegal.

Sections 23.5-41, *Violations*, and 23.5-42, *Enforcement Responses, Corrective Actions and Penalties*, of the City code include definitions of violations and the penalties that can be assessed by the City for illicit discharges to the MS4. City staff explained that enforcement would be based on the City code; however, the City can use its discretion on a case-by-case basis, depending on the nature of the violation and/or past offenses.

**Observation 2:** Permit Section III.C requires the City to implement procedures for addressing illegal spills and illegal dumping. Pursuant to this requirement, the City provided the EPA Inspection Team with a document titled *Spill Response Procedures, City of Rockville* (draft, updated November 12, 2009). The document (see Attachment 5, Exhibit 2) provides response protocols for three types of spills: 1) oil and petroleum spills; 2) sewage spills; and 3) spills onto roadways and waterways. The document also provides a flow chart to follow as well as the appropriate information sheets for reporting.

City representatives stated that the most recent training on the spill response procedures occurred in 2009 (fiscal year 2010). According to a training roster provided by the City, training was provided to 165 of approximately 500 total City employees, including 125 public works employees and 40 police officers. City representatives stated that employees hired after the date of the last training have not received the training, and no updates or refresher courses have been provided. For example, the City hired a new fats, oils, and grease (FOG) inspector as

part of the stormwater program approximately 3-4 months prior to the inspection. The FOG Inspector indicated that she had not received spill response training.

The EPA Inspection Team suggested that the City consider scheduling regularly occurring refresher spill training sessions, as well as establish protocols for training new hires on spill response. It should be noted that the *Spill Response Procedures, City of Rockville* was in a draft form. The EPA Inspection Team observed several other program documents in draft state during the inspection. The EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guidelines. The City Stormwater Manager explained the process to finalize a draft, which requires the document to be approved by the City Council.

**Permit Section III.C.1** – The Permit requires the City to develop and maintain a map showing the extent of the storm drain system.

**Observation 3:** The City maintains a map of its storm sewer system in an electronic geographic information system (GIS)-based mapping program. The map includes MS4 components such as storm sewer pipes, inlets, outfalls, post-construction stormwater management facilities, and surface waters. The City provided a sample printout of its GIS-based map to the EPA Inspection Team prior to the inspection (see Attachment 5, Exhibit 3).

**Permit Sections III.C.3 and 4** – The Permit requires the City to develop and implement procedures to field screen storm drain outfalls on a consistent basis, and also to identify the source of any suspected illicit discharges to the storm drain system.

**Observation 4:** Pursuant to Permit Sections III.C.3 and 4, the City asserted in its original NOI (see Attachment 2) that it would develop a volunteer residential based outfall screening program in order to identify hot spot outfalls for follow-up inspections by City staff. According to the City's 2013 Annual MS4 Report (see Attachment 7, Item No. 2), the City has completed (in permit year 3) the initial screening and identified hot spots. The 2013 Annual MS4 Report states that 162 hot spot inspections were conducted in permit year 10.

Further, the City has developed, and provided to the EPA Inspection Team, the *Illicit Discharge Detection and Elimination (IDDE) Program, Program Goals and Implementation Strategies* (draft, dated June 5, 2007). The document was prepared by AMEC Earth and Environmental, Inc. (Chantilly, Virginia). The document describes the approach asserted by the NOI in more detail.

The IDDE goals and strategies document states that the City's outfall inspection program is divided into two phases. The first phase

includes walking the City's streams during dry weather to identify additional outfalls and to inspect for illicit discharges. This involves walking approximately 11 miles of stream annually for three years. The areas with the highest illicit discharge potential are inspected first while the areas with low illicit discharge potential are inspected last. Figure 4.1 of the program document shows the illicit discharge potential by area in order to prioritize inspections. The City Stormwater Manager stated that the City has currently surveyed 80 percent of the total stream mileage within the MS4 jurisdiction. The City's 2013 Annual MS4 Report states that the City has finished 31 of 33 miles of stream walks through Permit Year-10, and plans on completing all 33 miles by the end of Permit Year-11.

The second phase involves performing outfall inspections based on findings from the first phase of the inspection program. Problem outfalls will be inspected more frequently – at a minimum of every six months. Other outfalls will be inspected at least once every five years.

It should be noted that the *Illicit Discharge Detection and Elimination (IDDE) Program, Program Goals and Implementation Strategies* was listed as a draft document; however, the City has been implementing the program since the development of the document in June 2007. As stated in Observation 2, the EPA Inspection Team observed several other program documents in draft state during the inspection. The EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guidelines.

**Observation 5:** City representatives stated that since groundwater routinely flows through outfalls during dry weather, the City has elected to put more focus on surveying and controlling the possible sources of illicit discharges than on outfall screening. A City inspector routinely performs “windshield” inspections of hot spot areas for potential sources of stormwater pollution. It should be emphasized that this occurs in addition to outfall screening.

“TABLE 1: Summary of Minimum Control Measures for the City of Rockville” of the City's NPDES MS4 Phase II 2013 Annual Report states that 162 hot spot inspections were conducted in Permit Year 10 and six illicit discharges were reported. It further states that of the six illicit discharges reported, five resulted in notices of violation (NOVs).

During the inspection, the EPA Inspection Team observed the City's IDDE hot spot inspector conducting windshield inspections. The windshield inspections appeared to be conducted very quickly as the inspector drove by or through hot spot sites. Based on those observations, the EPA Inspection Team suggested to the City that the windshield inspections be conducted more thoroughly. The EPA Inspection Team

observed that more comprehensive hot spot inspections could yield better results, even if hot spots are inspected less frequently as a result. This activity is further described in Observation 6 below.

The EPA Inspection Team also suggested the City create a hot spot inventory in order to better quantify and track hot spot inspections and sites. In addition the EPA Inspection Team suggested that the City develop a standard operating procedure (SOP) for the inspection process so that the process would be reproducible if the inspector position changes or is reassigned.

**Illicit Discharge Detection and Elimination Site Visits** – On November 5, 2013, the EPA Inspection Team conducted site visits. The EPA Inspection Team shadowed the City’s source control and FOG inspectors on their routine inspections. These included site visits to the following locations:

- North Stone Avenue industrial area.
- South Lawn Industrial Park.
- Watts Branch Creek.
- Woodmont Station.

Because of their relevance to the City’s obligations for IDDE under its MS4 permit, summary observations pertaining to the field activities are presented below.

**Observation 6: Windshield and FOG Inspections (November 5, 2013)**

City representatives explained that the City had conducted outfalls surveys on its streams in the past, but that City staff had not found this practice very fruitful. This was, in part, due to the high water table causing many dry weather flows at outfalls due to infiltration. City staff stated that they were instead focusing on source control upstream in commercial and industrial areas through frequent windshield activities and through incorporating a stormwater component into FOG inspections.

The EPA Inspection Team observed the following with regard to illicit discharge detection and elimination during the site visits:

- a. The City’s source control inspector drove the EPA Inspection Team through the North Stone Avenue industrial area and explained that he had identified an illicit discharge caused by Franco’s Marble Shop in 2012 (see Attachment 6, Photograph 1). The City source control inspector explained that he had observed the business discharging granite cuttings into an adjacent storm drain. He stated that he told the business to stop the practice and had issued an NOV with a penalty amount of \$1,000. He had then tried to trace the extent of the discharge and mitigate pollution that had gotten into the storm drain system.



- b. The EPA Inspection Team also shadowed a windshield inspection activity at the South Lawn Industrial Park. The City's source control inspector explained that he likes to inspect structures that drain large areas of the City and then trace back to the source if he observes indication of pollution. The EPA Inspection Team observed two concrete swales in a low area at the industrial park that drained to a drop inlet with a trash rack. Staining was observed in one of the concrete swales, trailing down gradient toward the drop inlet (see Attachment 6, Photographs 2, 3, and 4). The City's source control inspector stated that he would record the staining in his notes and schedule a re-inspection.
- c. The City's source control inspector performed a visual inspection of Watts Branch Creek near the intersection of Hurley Avenue and Watts Branch Parkway. He explained that since the creek drains a large portion of the City, he tries to inspect it frequently for sheen and other signs of pollution upstream (see Attachment 6, Photographs 5 and 6).
- d. The EPA Inspection Team observed the City's FOG inspector conduct an outdoor inspection of two restaurant's grease containers and back areas in the Woodmont Station shopping center (see Attachment 6, Photograph 7). The site had two grease bins and the lid on one of the bins was not shut (see Attachment 6, Photographs 7 and 8). The City's FOG inspector explained that she inspects the grease bins and the general areas around them as part of the inspection. If a messy bin is identified, she calls the grease hauling company and inquires about pickups. During the inspection, the EPA Inspection Team also noted that garbage dumpsters were located adjacent to a storm drain and that a black substance had built up on the ground directly in front of the storm drain (see Attachment 6, Photographs 9 and 10).

#### **MINIMUM CONTROL MEASURE 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM**

Permit Section III.D (Construction Site Stormwater Runoff Control) requires the City to adhere to Maryland Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland, which establishes a statewide erosion and sediment control program to control construction site stormwater runoff. This statute, coupled with the Code of Maryland Regulations (COMAR), specifies the requirements for any construction activity that disturbs 5,000 square feet or more of earth.

COMAR 26.17.01.02 states that an acceptable erosion and sediment control program will include 1) an effective erosion and sediment control ordinance (or an effective set of erosion and sediment control regulations) which has been approved by the Water Management Administration (hereinafter, Administration); 2) review and approval of erosion and sediment control plans in accordance with the *2011 Maryland Standards and Specification for Soil Erosion and Sediment Control*; 3) requirements for erosion and sediment control plans to provide effective erosion and sediment control strategies (i.e., BMPs) and information necessary to

enable the proper installation and maintenance of these strategies; and 4) inspection and enforcement procedures (in delegated jurisdictions) that ensure compliance with the approved erosion and sediment control plan, as well as provide for timely response to citizen complaints. Further, COMAR 26.17.01.11 states that the *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control* is incorporated by reference by the Administration, and shall serve as the official guide for erosion and sediment control principles, methods, and practices.

The City has incorporated erosion and sediment regulations that meet or exceed the COMAR 26.17.01 regulations into Chapter 19 of its City code (see Attachment 5, Exhibit 4). Under the City code, construction activity is required to comply with code provisions if the activity 1) involves 5,000 square feet or more of disturbed area; 2) involves 100 cubic yards or more of grading; 3) involves land disturbing activity within a stream buffer; and/or 4) involves the construction of a new, single-unit, detached dwelling, a townhouse, or a semi-detached dwelling unit.

City representatives stated that the City can also use its own discretion to require land disturbing activities, regardless of the amount of land disturbed or graded, to follow the regulations based on extenuating environmental circumstances (i.e., proximity to environmentally sensitive areas). Specific elements of the City's erosion and sediment control program are outlined in the observations below.

**Observation 7:** COMAR 26.17.01.08 states the following concerning erosion and sediment plan review:

- (1) *The approval authority shall review and approve an erosion and sediment control plan in accordance with the criteria contained in the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control."*
- (2) *The approval authority shall assess the adequacy of the proposed erosion and sediment control measures to minimize erosion and keep sediment on site.*
- (3) *When appropriate, an on-site evaluation shall be conducted as part of the review process in order to provide proper consideration of existing conditions and proposed control measures.*

Pursuant to this requirement, the City has adopted language into Chapter 19, Article V, Division 3, Section 19-95 of its City code which states the following, unless otherwise allowed:

*Development and Redevelopment Projects must go through the following stages:*

- (1) *Natural Resource Inventory/Forest Stand Delineation Plan (NRI/FSD) approval.*
- (2) *Preliminary Erosion and Sediment Control Plan approval.*
- (3) *Sediment Control Construction Plan approval.*
- (4) *Sediment Control Permit issuance.*

City representatives stated that the plan review and approval process is primarily administered by the Engineering Division of the Department of Public Works. The City has up to four engineers and three engineering technicians in the DPW who can work on plan review. The City has developed checklists for the process; these checklists are stored in the *Permit Plan* electronic database for tracking.

**Observation 8:**

COMAR 26.17.01.06 states the following concerning erosion and sediment control inspector training and certification:

- (1) The Administration shall require certification of responsible personnel as established by the Sediment Control Subtitle and in accordance with this regulation.*
- (2) Certification is obtained by completing an Administration-approved training program.*
- (3) Certification is valid for 3 years and is automatically renewed unless the Administration notifies the certificate holder that additional training is required.*

Pursuant to this requirement, the City provided certification and training completion records for the City's one erosion and sediment control inspector (Ms. Audra Lew). Specifically, the City provided records showing the Ms. Lew obtained MDE's standard responsible personnel erosion and sediment control certification (i.e., "Green Card") as well as Maryland State Highway Authority erosion and sediment control certification (i.e., "Yellow Card") (see Attachment 5, Exhibit 5). The City also provided a copy of Ms. Lew's *Certified Erosion, Sediment and Storm Water Inspector* (CESSWI) certification and *International Erosion Control Association* (IECA) membership acceptance (see Attachment 5, Exhibit 6).

**Construction Site Visits Conducted as a Component of the Inspection** – On November 6, 2013 the EPA Inspection Team conducted site visits at three privately owned and operated construction sites within the jurisdictional boundaries of the City: 1) Montgomery College Science East Building, 2) Bainbridge Apartments, and 3) 275 North Washington Street. Dry weather conditions were experienced during the inspection activities. The City also provided records of all sediment and erosion control inspections conducted between July 1, 2012 and June 30, 2013 (see Attachment 5, Exhibit 7). Inspections are tracked in the City's *Permit Plan* electronic database.

The purpose of the visits was to assess the City's oversight activities for construction sites and compliance with Permit and COMAR requirements. COMAR 26.17.01.09 states the following concerning erosion and sediment control inspections:

*When conducting an inspection, the appropriate enforcement authority shall:*

- (1) Ensure that an approved erosion and sediment control plan and permits are on the site as required;*
- (2) Conduct a complete inspection of the site unless otherwise indicated;*

- (3) *Prepare a written inspection report that includes:*
  - (a) *The date and location of this site inspection;*
  - (b) *Whether the approved plan has been properly implemented and maintained;*
  - (c) *Practice deficiencies or erosion and sediment control plan deficiencies;*
  - (d) *If a violation exists, the type of enforcement action taken; and*
  - (e) *If applicable, a description of minor or major modifications as described in this regulation; and*
- (4) *Notify the on-site personnel and the owner/developer in writing when violations are observed, describing the:*
  - (a) *Nature of the violation;*
  - (b) *Required corrective action; and*
  - (c) *Time period in which to have the violation corrected.*

Pursuant to this requirement, the City has adopted the *City of Rockville Sediment Control and Stormwater Management Regulations* (Resolution No. 21-12 on December 17, 2012) into Chapter 19 of its City code. Article III, Division 5, *Inspection and Enforcement*, Section A states:

- (1) *Inspection and enforcement of conditions of the Sediment Control Permit will be the responsibility of the Department [Public Works], if so delegated by MDE.*
- (2) *The Department will inspect every active Development Project with a Sediment Control Permit for compliance with Permit conditions once every two weeks, on average.*
- (3) *The issuance of a Sediment Control Permit and the inspection of the Site by the Department do not relieve the Applicant of the continuing responsibility to effectively abate sediment pollution, and to properly install sediment control measures, stabilization and maintenance of such measures in good working order.*
- (4) *The Department will investigate complaints concerning erosion and sediment control and will take any necessary enforcement actions in accordance with the Ordinance. The Department shall notify the complainant of the result of any investigation and any enforcement action taken.*

During the site visits, the EPA Inspection Team walked the construction sites with the City's dedicated Erosion and Sediment Control Inspector. Because of their relevance to the City's obligations for construction site stormwater runoff control under its MS4 permit, summary observations pertaining to the site visits are presented below.

**Observation 9: Private Construction Site – Montgomery College Science East Building (November 6, 2013)**

The Montgomery College Science East Building construction project (SCP No. 2011-0027) is located at Montgomery College (51 Mannakee Street) in Rockville, Maryland. This project consists of demolition of old structures, heavy utility installation, construction of an addition to an existing science building, and landscaping. According to the City's Erosion and Sediment Control Inspector, the project is nearing completion; conditions observed during the visit support this. Whiting Turner is the prime contractor for the construction project. At the time of the inspection, the new building exterior structure was substantially

complete. According to the “Inventory of Current SCP Projects” (see Attachment 7, Item No. 21), the disturbed area of the site was 45,207 square feet (approximately 1 acre).

According to the City’s Erosion and Sediment Control Inspector, stormwater from the site enters storm drain inlets around the perimeter of the site. The storm drains discharge to a stormwater management pond on the college campus. According to a City-provided storm drain map, the pond ultimately discharges into the City’s MS4, and then into Watts Branch, approximately 525 feet southwest of the construction site.

The EPA Inspection Team observed the following with regard to erosion and sediment controls at the private construction site and verbally reviewed the observations with the City representative during the site visit:

- a. A small amount sediment tracking was observed from the main construction entrance (see Attachment 6, Photograph 11).
- b. The EPA Inspection Team observed the sound of running water in a storm drain on the southeastern edge of the site (see Attachment 6, Photograph 12).
- c. An area of silt fence around along the southeastern border of the site was found to be sagging at the time of the inspection (see Attachment 6, Photograph 13). The City’s Erosion and Sediment Control Inspector notified the site superintendent, who ordered repairs during the inspection.
- d. The site contained a concrete washout station as required by City’s sediment and erosion control plan approval guidelines (see Attachment 6, Photograph 14).
- e. The EPA Inspection Team observed three new micro-bioretenion structures (Numbers 1–3) in various stages of completion (see Attachment 6, Photographs 15 through 19). Numbers 2 and 3 contained media, but had not yet been planted. Both structures were surrounded by silt fence and contained inlet protection. Number 1 had been planted and stabilized, but was not yet online.
- f. The EPA Inspection Team observed what appears to be a bucket of curing compound (see Attachment 6, Photograph 20).
- g. The EPA Inspection Team observed a soil stockpile that was not totally covered in the southwest corner of the site (see Attachment 6, Photograph 21). The City’s Erosion and Sediment Control Inspector notified the site superintendent. The superintendent stated the stockpile was temporary, and would be removed within 24–48 hours.
- h. The EPA Inspection Team observed various erosion and sediment control BMPs at the site (see Attachment 6, Photographs 22 through 26).

- i. During the EPA Inspection Team's site visit, the City's Erosion and Sediment Control Inspector conducted a routine erosion and sediment control inspection of the site. The report contained the information required by the Permit, COMAR, and the City code for erosion and sediment control during construction. The inspector documented the findings on her inspection report, clearly relayed the issues noted, and provided the site representative with the inspection report at the time of exit from the site. She provided the EPA Inspection Team with a copy of the checklist and report completed during the site visit. A copy of the report is included in Attachment 5, Exhibit 8. A records review of the data stored in the *Permit Plan* electronic tracking database showed that erosion and sediment control inspections were being conducted approximately once every two weeks (on average) as required by the City code.

**Observation 10: Private Construction Project – Bainbridge Apartments (November 6, 2013)**

The Bainbridge Apartment construction project (SCP No. 2013-00002) is located at the northern corner of the North Frederick Road and King Farm Boulevard intersection in Rockville, Maryland. The project consists of mass grading and the construction of a multi-unit apartment complex. According to the City's active permit inventory, the development was issued a sediment control permit on July 18, 2013 for 199,489 square feet (approximately 4.6 acres) of disturbed area. At the time of the site visit, the site was graded and very little vertical construction had taken place. The contractor had recently excavated a location for future installation of an underground stormwater treatment device. Attachment 6, Photograph 27 shows the area in which the post-construction BMP was to be installed on the day following the inspection. The prime contractor was Buch Construction.

According to the City's Erosion and Sediment Control Inspector, stormwater from the site enters storm drain inlets around the southeast and southwest areas of the site. These storm drains discharge to the City's MS4. Stormwater can also sheet flow offsite via the northeast and northwest perimeters.

The EPA Inspection Team observed the following with regard to erosion and sediment controls at the private construction site and verbally reviewed the observations with the City representative during the site visit:

- a. A small amount of sediment tracking was observed near the construction entrance (see Attachment 6, Photographs 28 through 30). At the time of the inspection, the City's Erosion and Sediment Control Inspector informed the contractor's superintendent that the construction entrance needed to be monitored for sediment being tracked offsite.

- b. The City's Erosion and Sediment Control Inspector explained that City construction site inspections focus mainly on preventing sediment pollution to the MS4. The EPA Inspection Team observed several material storage areas around the site (see Attachment 6, Photographs 31 through 35) which contained other material that may have posed a pollution threat to the City's MS4. For example, the EPA Inspection Team observed adhesives, sealant, tires, and stored equipment leaking hydraulic fluid in various locations around the site. While it is not a specific requirement of the Permit or City code to inspect the storage and handling of these types of materials, the EPA Inspection Team suggested, as a program improvement, including a focus on other pollutants, such as petroleum products and other chemicals, into the inspection process.
- c. The EPA Inspection Team observed super silt fence running parallel to standard silt fence near the southeastern and southwestern boundaries of the site (see Attachment 6, Photograph 36).
- d. An area of silt fencing along the northeastern perimeter of the site was observed to be degraded in some places, and was also found to be punctured by asphalt debris (see Attachment 6, Photographs 37 through 39). The City's Erosion and Sediment Control Inspector notified the superintendent that the silt fence needed to be repaired per MDE specifications.
- e. Earth buildup from compaction and grading activities was observed along the base of the silt fence on the northern edge of the site (see Attachment 6, Photograph 40). The City's Erosion and Sediment Control Inspector notified the superintendent that the area needed to be cleared per MDE specifications. The superintendent stated that the area would be cleared by the grading contractor.
- f. The EPA Inspection Team observed various erosion and sediment control BMPs at the site (see Attachment 6, Photographs 41 through 46).
- g. The site contained a concrete washout station as required by City sediment and erosion control plan approval guidelines (see Attachment 6, Photograph 47).
- h. The City's Erosion and Sediment Control Inspector notified the superintendent that the filter fabric in the contractor's portable sedimentation tank would need to be replaced before its next use (photograph not available).
- i. Through conversations with the prime contractor's superintendent, the EPA Inspection Team found that the construction site did not have a stormwater pollution prevention plan (SWPPP). The City's Erosion and Sediment Control Inspector explained that her typical inspection protocol does not include reviewing documents such as SWPPPs and NPDES permits. The EPA Inspection Team suggested, as program

improvement, that the City add provisions for checking for possession of these types of documents into its inspection protocol. The City inspectors have more contact with project contractors than most other entities and agencies; therefore, their help in identifying environmental deficiencies related to outside agency regulations could be an added benefit to the inspection process and added protection for the MS4 from pollutants.

- j. During the EPA Inspection Team's site visit, the City's Erosion and Sediment Control Inspector conducted a routine erosion and sediment control inspection of the site. The report contained the information required by the Permit, COMAR, and the City code for erosion and sediment control during construction. The inspector documented the findings on her inspection report, clearly relayed the issues noted, and provided the site representative with the inspection report at the time of exit from the site. She also provided the EPA Inspection Team with a copy of the checklist and report completed during the site visit. A copy of the report is included in Attachment 5, Exhibit 8. A records review of the data stored in the *Permit Plan* electronic tracking database showed that erosion and sediment control inspections were being conducted approximately once every two weeks (on average) as required by the City code.

**Observation 11: Private Construction Site – 275 North Washington Street (November 6, 2013)**

The 275 North Washington Street construction project (SCP No. 2013-00041) was located in Rockville, Maryland. This project consists of demolition of an old grocery store with mass grading and construction of a multi-unit apartment complex. Harvey Cleary Builders is the prime contractor for the construction project. At the time of the inspection, the old building was demolished and excavation for the new building's foundation had been completed (see Attachment 6, Photograph 48). The majority of the site was an open pit, equipped with a dewatering device. According to the "Inventory of Current SCP Projects" (see Attachment 7, Item No. 21), the disturbed area of the site was 65,536 square feet (approximately 1.5 acres).

According to the City's Erosion and Sediment Control Inspector, stormwater from the site enters storm drain inlets around the perimeter of the site. These storm drains discharge to the City's MS4.

The EPA Inspection Team observed the following with regard to erosion and sediment controls at the private construction site and verbally reviewed the observations with the City representative during the site visit:

- a. Portable sedimentation tanks were observed near the construction entrance (see Attachment 6, Photographs 49 through 51). The effluent appeared to be adequately treated.



- b. The EPA Inspection Team observed an earthen berm over water and sewer connection pipes that were day-lighted as a result of the demolition of the old building (see Attachment 6, Photograph 52). The City's Erosion and Sediment Control Inspector indicated that she had requested the contractor to seed the berm and install silt fence on the pavement around the berm. She notified the superintendent and indicated a stop-work order would be issued if the silt fence on pavement was not installed by close of business on November 6, 2013. The superintendent stated that a subcontractor was on the way to install the silt fence, and the berm would be seeded by close of business on November 8, 2013.
- c. The City's Erosion and Sediment Control Inspector noted that a sump pit installed for the foundation excavation was not constructed per MDE specifications. Specifically, hardware cloth was not installed to the required height around the sump pump riser (see Attachment 6, Photograph 53). The City's Erosion and Sediment Control Inspector notified the superintendent of the deficiency. The superintendent stated that the contractor would install more hardware cloth as soon as possible.
- d. The City's Erosion and Sediment Control Inspector noted several holes in silt fence along the eastern border of the site. She notified the superintendent to repair the silt fence per MDE specifications.
- e. The City's Erosion and Sediment Control Inspector noted evidence of tracking in the parking lot adjacent to the site (see Attachment 6, Photograph 54).
- f. During the EPA Inspection Team's site visit, the City's Erosion and Sediment Control Inspector conducted a routine erosion and sediment control inspection of the site. The report contained the information required by the Permit, COMAR, and the City code for erosion and sediment control during construction. The inspector documented the findings on her inspection report, clearly relayed the issues noted, and provided the site representative with the inspection report at the time of exit from the site. She provided the EPA Inspection Team with a copy of the checklist and report completed during the site visit. A copy of the report is included in Attachment 5, Exhibit 8. A records review of the data stored in the *Permit Plan* electronic tracking database showed that erosion and sediment control inspections were being conducted approximately once every two weeks (on average) as required by the City code.

## MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT

Permit Section III.E (Post Construction Stormwater Management) requires the City to adhere to Maryland Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland which establishes a statewide stormwater management program. This statute, coupled with COMAR, requires that stormwater management for new development and redevelopment be addressed for any proposed project that disturbs 5,000 square feet or more of earth.

COMAR 26.17.02.03 states that an acceptable stormwater management program will include 1) a Water Management Administration-approved stormwater management ordinance; 2) stormwater management planning and approval processes that provide stormwater management for every land development subject to COMAR 26.17.02, implementation of environmental site design (ESD) to the maximum extent practicable (MEP), and the ability and the information necessary to review adequately proposed installation and maintenance measures for stormwater management; and 3) inspection and enforcement procedures that ensure the proper construction and maintenance of approved stormwater management measures.

The City has in turn incorporated stormwater management regulations which meet or exceed the COMAR and Annotated Code of Maryland regulations into Chapter 19 of its City code (see Attachment 5, Exhibit 4). Under the City code, development is required to comply with code provisions if it 1) involves 5,000 square feet or more of disturbed area; 2) creates or replaces 2,000 square feet or more of impervious area at a single-unit, detached dwelling, a townhouse, or a semi-detached dwelling lot; 3) creates or replaces 250 square feet or more of impervious area on property other than a single-unit, detached dwelling, a townhouse, or a semi-detached dwelling lot; and/or 4) requires federal or state authorization for alteration of any floodplain, City waterway, stream buffer, wetlands or wetlands buffer. Specific elements of the City's stormwater management program are outlined in the observations below.

**Observation 12:** COMAR 26.17.02.04 requires the City to implement local stormwater program ordinances which address 1) a comprehensive stormwater management plan review and approval process; 2) exemptions and waivers; 3) criteria and procedures for stormwater management; 4) proper implementation of stormwater management in accordance with the approved plan; 5) maintenance responsibilities and requirements including periodic inspection; and 6) penalties for noncompliance with the ordinances, including suspension of construction activities when appropriate.

Pursuant to this requirement, the City has adopted Chapter 19 – *Sediment Control and Stormwater Management* (Ordinance No. 19-12) into its City code (see Attachment 5, Exhibit 4). The City code defines requirements for permit acquisition, plan submittal and review, compliance inspections, as well as violations and enforcement. Further, the City has adopted the *City of Rockville Department of Public Works Sediment Control and Stormwater Management Regulations* (Resolution No. 21-12; see Attachment 5, Exhibit 4) as a supplement to Ordinance No. 19-12.

Resolution No. 21-12 provides specific regulations and guidance for each program element defined in Ordinance No. 19-12, including stormwater management (SWM) plan approval requirements and inspection and enforcement protocols. The City's plan approval and permitting process takes place in four steps: 1) pre-application SWM concept approval; 2) development SWM concept approval; 3) SWM construction plan approval; and 4) SWM permit issuance. The process is primarily administered by the Engineering Division of the Department of Public Works. It should be noted that both Ordinance No. 19-12 and Resolution No. 21-12 require ESD to the MEP.

**Observation 13:** COMAR 26.17.02.03.C(2)(c) requires the City's stormwater management program to include inspection procedures that ensure the proper construction and maintenance of approved stormwater management measures. In addition, COMAR 26.17.02.11.A requires BMP inspections during the first year of operation and at least once every three years after that.

Pursuant to this requirement, the City provided maintenance and inspection report templates for stormwater management ponds, infiltration systems, oil-grit separators, underground stormwater storage and treatment systems, and proprietary devices. The report templates also function as a guidance document/SOP for conducting stormwater management inspections. The City provided another guidance document which described how to determine if repairs are needed for a BMP and what type of repairs may be required (see Attachment 7, Item No. 31). It should be noted that the repair guidance document, titled *Stormwater Facility Repair – Documentation and Decision Process* (dated October 10, 2013) was only a draft version. As stated previously, the EPA Inspection Team suggested that the City take the necessary steps to ensure that it finalizes and approves all of its program documents and guidelines.

The City tracks post-construction BMP inspections and maintenance on privately owned stormwater facilities in an electronic database (*Inspector Software*). The City provided records of BMP inspections conducted for private facilities between July 1, 2012 and June 30, 2013 (see Attachment 7, Item No. 32). It should be noted that the data provided by the City only contains a catalogued list of inspections and maintenance performed; it does not include the detailed reports that City representatives stated are generated during inspection and maintenance activities.

The City tracks routine maintenance, repair work, and inspections conducted on publicly owned facilities primarily through handwritten "Work Order Request" forms (see Attachment 7, Item No. 32). Electronic database records of inspection and maintenance activities conducted on publicly owned stormwater facilities were not provided. According to City representatives, currently some public stormwater facilities are being

tracked in the City's electronic tracking system; however, the inventory is not complete. Based on the records provided by the City, the EPA Inspection Team was not able to determine whether or not the City was performing triennial inspections on publicly owned BMPs as required by COMAR 26.17.02.11.A.

The City has compiled over 600 private stormwater facilities in *Inspector Software*. The EPA Inspection Team suggested, as a program improvement, that the City inventory and track public stormwater facility inspections and maintenance in the electronic database, as they do with the privately owned facilities.

City representatives also stated that public and private ESD BMPs on many recently constructed sites, as a result of new Maryland design standards, will begin needing their initial (and then triennial) inspections in the near future. The EPA Inspection Team also suggested thoroughly tracking these BMPs in the electronic database, once they start getting inspected.

**Post Construction Stormwater Management Facility Site Visits Conducted as a Component of the Inspection** – COMAR 26.17.02.11.A states the following concerning post-construction stormwater management facility maintenance and routine inspections:

*Maintenance requirements established in this regulation shall be contained in all county and municipal ordinances and shall provide for inspection and maintenance. The owner shall perform or cause to be performed preventive maintenance of all completed ESD treatment practices and structural stormwater management measures to ensure proper functioning. The responsible agency of the county or municipality shall ensure preventive maintenance through inspection of all stormwater management systems. The inspection shall occur during the first year of operation and then at least once every 3 years after that.*

Pursuant to this requirement, the City has adopted the following language into Section 19-65 of its City code:

*Except as otherwise provided in Sec. 19-66, the Owner must execute an Easement and Inspection and Maintenance Agreement for SWM Systems or Watershed Improvements in a manner acceptable to the Department and the City Attorney. The document(s) must:*

- (1) Require the Owner to inspect the SWM System.*
- (2) Require the Owner, or any other Person or agent in control of such SWM System, to maintain in good condition and promptly repair and restore all above ground and underground SWM System components including landscaping. Such maintenance, repair and restoration must be in accordance with Approved Plans and applicable laws, standards, guidelines, policies and the Regulations.*
- (3) Provide for Department access to the SWM System at reasonable times for regular inspection to ensure that the System is in proper working condition. The Easement must include sufficient provisions for access from a public road or Right-of-Way.*
- (4) Provide that if after notice by the Department to correct a violation requiring maintenance work, satisfactory corrections are not made by the Owner within a*

*reasonable period of time as determined by the Department, the Department may perform all necessary work to place the SWM System in proper working condition. The Owner of the SWM System will be assessed the cost of the work, which may be enforced by a lien on the property or which may be placed on the tax bill for all such property and collected along with ordinary taxes by the City.*

- (5) Require all Owners of properties served by the SWM System to be jointly and severally responsible to the City for the maintenance of the SWM System and liable for any costs incurred by the City pursuant to the agreement and all such properties are jointly and severally subject to the imposition of liens for said costs.*
- (6) Prohibit the removal, replacement or alteration of the SWM System without prior written approval from the Department.*
- (7) Prohibit the construction of structures, grading or installation of landscaping within the Easement, except as allowed by the Permit or approved by the Department.*
- (8) Contain any other provision as may be required by the Department or the City Attorney.*
- (9) Be binding upon all subsequent Owners of land served by the SWM System.*
- (10) Be recorded by and at the expense of the Owner in the land records of Montgomery County prior to the issuance of a SWM Permit unless otherwise allowed by the Director.*

City inspectors inspect private and public BMPs that are located above ground, and the City contracts out inspection of underground BMPs. Inspections occur during the first year of operation and every three years after that. As mentioned above, inspections and maintenance recommendations are tracked in the City's *Inspector Software* for privately owned BMPs and primarily through handwritten maintenance orders for publicly owned BMPs.

On November 6, 2013 the EPA Inspection Team conducted site visits at two privately owned and operated stormwater management facilities and one City-owned and operated post-construction stormwater management facility: 1) King Farm Underground Sandfilter; 2) Redland Tech Center Sandfilter and Dry Pond; and 3) the City-owned pond at Tower Oaks Village. Dry weather conditions were experienced during the inspection activities. The purpose of the visits was to assess the City's inspection and maintenance activities for post-construction stormwater management facilities, as well as compliance with Permit and COMAR requirements.

**Observation 15: Post Construction Stormwater Management Facility – King Farm Underground Sandfilter (November 6, 2013)**

King Farm is a housing development, composed primarily of single-family houses, located in the northern portion of the City's MS4. The privately owned sandfilter is located in the middle of a traffic circle, encompassed by Pleasant Circle. The EPA Inspection Team shadowed the City's contracted inspection team, Charles P. Johnson and Associates, as they conducted a typical confined space inspection of the privately owned BMP. They inspected the sandfilter using as-built drawings in order to verify that the facility was maintained and operating properly.

The EPA Inspection Team observed the following with regard to BMP maintenance at the stormwater management facility:

- a. The contractor used a tripod and harness in order to access the underground structure (see Attachment 6, Photograph 55).
- b. Stormwater was observed to be appropriately pooled in the sandfilter's forebay (i.e., permanent pool) (see Attachment 6, Photograph 56).
- c. The contractor's representatives stated that the structure had been inspected and cleaned in the recent past, and that very little sediment buildup was present in the filter chamber (see Attachment 6, Photograph 57). The City Stormwater Manager stated that privately owned stormwater management facilities receive routine maintenance on a three-year cycle. The City also verified the tracking method by providing an inventory list of BMP inspection and maintenance records for July 1, 2012 through June 30, 2013 (see Attachment 7, Item No. 32).

**Observation 16: Post Construction Stormwater Management Facility – Redland Tech Center Sandfilter and Dry Pond (November 6, 2013)**

The Tech Center is located at 520 Gaither Road. The privately owned, above-ground sandfilter and dry pond are located on the southwest side of the site (see Attachment 6, Photographs 58 and 59). The EPA Inspection Team shadowed the City's source control inspector as he conducted an inspection of the BMPs. The City inspector examined the BMPs using as-built drawings, and checked all aspects of the BMPs including inlets and outlets.

The EPA Inspection Team observed the following with regard to BMP maintenance at the stormwater management facility:

- a. Filter fabric and riprap, which were shown on the BMP as-built drawings, were not present (see Attachment 6, Photograph 60). An animal appeared to have disturbed the sandfilter media (see Attachment 6, Photograph 61).
- b. An inlet to the dry pond from the sandfilter was missing a flap cover (see Attachment 6, Photograph 62). Apparent structural issues with the dry pond outlet structure included rebar maintenance, concrete erosion issues, and animal disturbance of the bank behind the structure (see Attachment 6, Photographs 63 and 64).
- c. The EPA Inspection Team was not able to verify inspection and maintenance tracking of this BMP in the tracking documentation provided by the City (see Attachment 7, Item No. 32).

**Observation 17: Post Construction Stormwater Management Facility – City-owned Pond at Tower Oaks Village (November 6, 2013)**

The Tower Oaks Village wet pond is publicly owned, and located on the northeast corner of Tower Oaks Boulevard and Wooten Parkway in Rockville, Maryland. The pond had both low- and high-flow risers (see Attachment 6, Photograph 65).

The EPA Inspection Team observed the following with regard to BMP maintenance at the stormwater management facility:

- a. Trash and debris were piled around and on top of the low-flow riser (see Attachment 6, Photograph 66).
- b. The EPA Inspection Team was not able to verify inspection and maintenance tracking of this BMP in the tracking documentation provided by the City (see Attachment 7, Item No. 32)

**MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING**

Permit Section III.F (Pollution Prevention and Good Housekeeping) requires the City to implement and maintain pollution prevention and good housekeeping techniques and procedures to reduce pollutants from all municipal operations. The Permit requires the program to include municipal employee training materials as well as runoff controls geared toward fleet yard and building maintenance activities, and to ensure that all municipally owned activities are properly permitted under NPDES or any other state or federal water pollution control programs. The Permit further states that the City is either to develop pollution prevention/good housekeeping procedures or to rely on another responsible entity for compliance.

**Observation 18:** Pursuant to Permit Section III.F requirements, the City provided an SWPPP (dated 2008) for the Gude Maintenance Facility, which is the City's primary maintenance facility. The EPA Inspection Team observed that facility, and City team members appeared to be mostly unaware of the requirements of the SWPPP. Further, the facility has undergone significant site and stormwater management changes through construction and redevelopment since September 2008, requiring the SWPPP to be updated to reflect the current site status. The EPA Inspection Team visited the site on November 6, 2013. Specific observations and descriptions are included in Observation 19 below.

In addition to the Gude Maintenance Facility SWPPP, the City also provided a draft version of a proposed training presentation, titled *Gude Good Housekeeping* (dated October 24, 2013). The material provided appeared to focus mostly on pollution caused by sediment and erosion. City representatives stated that they are planning to present the training to applicable staff by the end of 2013.

### **Municipal Operations Facility Site Visits Conducted as a Component of the Inspection**

On November 6, 2013 the EPA Inspection Team conducted three site visits at municipally owned facilities within the jurisdictional boundaries of the City's MS4. The purpose of the site visits was to document site conditions and to assess the City's oversight activities for municipal operation and maintenance. The EPA Inspection Team visited the following sites: 1) Gude Maintenance Facility; 2) the Recreation and Parks Services Facility; and 3) the Hunting Hill Water Tower and Salt Shed. Dry weather conditions were experienced during the inspection activities. Because of their relevance to the City's obligations for pollution prevention/good housekeeping for City operations under its MS4 permit, summary observations pertaining to these three site visits are presented below.

#### **Observation 19:      Municipal Facility – Gude Maintenance Facility (November 6, 2013)**

The Gude Maintenance Facility is located at 14625 Rothgeb Drive, Rockville, Maryland (see Attachment 6, Photograph 67). The facility primarily consists of an employee parking area, administrative building, fueling station, various covered garages, indoor wash rack, and golf course storage. The facility also had a large salt shed and salt mixing operation (see Attachment 6, Photograph 68). A majority of the facility's ground surface is impervious asphalt. According to the site schematic provided by the City, two drainage basins are located on the site. One basin drains to Aquaswirl pre-treatment devices on the southern side of the facility before discharging to the pond on the northeast side of the site (see Attachment 6, Photograph 69). The other basin drains to StormFilter underground vaults before discharging to the pond on the northeast side of the site.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility:

- a. In addition to the Permit requirements, the Gude maintenance complex was also regulated under the MDE General Discharge Permit for Stormwater Associated with Industrial Activities (Discharge Permit No. 02-SW).

Section B of Discharge Permit No. 02-SW states that the City will have and implement a SWPPP for each facility covered by this Permit. The SWPPP will be prepared in accordance with sound engineering practices. The plan will identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with industrial activity from the facility. In addition, the plan will describe and ensure the implementation of practices to be used to reduce the pollutants in stormwater discharges associated with industrial activity at the facility and to ensure compliance with the terms and conditions of this permit.

Further, Section B.4 of Discharge Permit No. 02-SW requires the City to amend the plan whenever there is a change in design, construction,



operation, or maintenance which creates a potential for the discharge of pollutants to the waters of the state. Additionally, the City must amend the SWPPP if it proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with industrial activity.

As stated previously, the City provided an SWPPP (dated September 2008) for the Gude maintenance complex. The complex has undergone significant site changes through construction and redevelopment since the SWPPP was developed in September 2008. The changes made to the site require the SWPPP to be updated to reflect the current status.

- b. A large debris pile storage area was located on the southern side of the facility (see Attachment 6, Photograph 70). A storm drain inlet adjacent to the storage area had inlet protection that City staff stated was implemented to prevent the downstream Aquaswirl pre-treatment devices from becoming quickly clogged, thus reducing the maintenance requirements (see Attachment 6, Photograph 71).
- c. Gravel stored in a covered bay on the northwest side of the facility was migrating past the roofline of the building (see Attachment 6, Photograph 72).
- d. The EPA Inspection Team suggested, based on site visit observations, that the City should improve material containment practices at the facility in order to avoid pollutant runoff.
- e. The facility is used by three different City departments/divisions and one private contractor (Billy Casper Golf). The EPA Inspection Team suggested that the City implement a formal and routine stormwater inspection for the complex. The EPA Inspection Team also suggested, as a program improvement, that the City develop a centralized oversight entity to maintain consistency and effectiveness in pollution prevention practices among the various groups using the complex.

**Observation 20: Municipal Facility – Recreation and Parks Services Facility (November 6, 2013)**

The Recreation and Parks Services Facility is located on Avery Road near the Rockville Civic Center Park in Rockville, Maryland (see Attachment 6, Photograph 73). The facility is part of a large City-owned area that includes a historical mansion, civic center, nature center, and a theater. The facility primarily consists of storage buildings and a bulk materials storage area.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility:

- a. Various stockpiles of bulk materials including infield clay and other soil were stored between concrete barricades at the facility (see Attachment 6, Photographs 74 and 75). Soil from the stockpiles had migrated out of containment and appeared to have been carried by stormwater down a channelized depression in the adjacent asphalt.
- b. Three bags of calcium chloride flakes were stored outdoors (see Attachment 6, Photograph 76).
- c. The EPA Inspection Team suggested, based on site visit observations, that the City should improve material containment practices at the facility in order to avoid pollutant runoff.

**Observation 21:      Municipal Facility – Hunting Hill Water Tower and Salt Shed (November 6, 2013)**

The Hunting Hill Water Tower and Salt Shed is located off of Glen Mill Road in Rockville, MD. The facility is used as a backup salt storage site and only stores material when needed. The facility has a 200-ton capacity. No observations with regard to pollution prevention and good housekeeping were made at the facility.



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**TOWSON UNIVERSITY, MARYLAND  
MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4) PROGRAM  
INSPECTION REPORT**

**Final Report Date: February 18, 2014**

**Field Activity Dates: November 7–8, 2013**

**U.S. Environmental Protection Agency, Region III  
Water Protection Division  
Office of NPDES Enforcement (3WP42)  
1650 Arch Street  
Philadelphia, PA 19103**

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## DOCUMENTS CITED IN REPORT

Shortened Name	Document Title and Date
EPA Records Request	List of documents that the EPA Inspection Team requested from the University on September 27, 2013
Permit	<i>National Pollutant Discharge Elimination System General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems, General Discharge Permit No. 05-SF-5501 (General NPDES Permit No. MDR055501), effective April 14, 2003</i>
University Response Inventory	Inventory of documents provided by the University in response to the EPA Records Request

## ACRONYMS AND ABBREVIATIONS USED IN REPORT

Abbreviation	Corresponding Term
BMP	best management practice
CGP	construction general permit
COMAR	Code of Maryland Regulations
EH&S	Environmental Health & Safety
EPA	[United States] Environmental Protection Agency
ESD	environmental site design
IDDE	illicit discharge detection and elimination
MDE	Maryland Department of the Environment
MEP	maximum extent practicable
MOU	memorandum of understanding
MS4	municipal separate storm sewer system
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
SOP	standard operating procedures
SWPPP	stormwater pollution prevention plan

## EXECUTIVE SUMMARY

From November 7 through 8, 2013, a compliance inspection team composed of staff from the U.S. Environmental Protection Agency (EPA) Region III and EPA's contractor, PG Environmental, LLC, (collectively the EPA Inspection Team) inspected the municipal separate storm sewer system (MS4) program of Towson University located in Towson, Maryland (hereinafter, the University).

The purpose of this inspection was to obtain information that will assist EPA in assessing the University's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program.

Based on the information obtained and reviewed, the EPA Inspection Team made several observations concerning the University's MS4 program related to the specific Permit requirements evaluated. Table 1 below summarizes the permit requirements and the observations made by the inspection team.

**Table 1. Summary of Permit Requirements and Inspection Observations**

Permit Requirement	Observations
Permit Section III. (MS4 Program Implementation)	Observation 1. The University was able to demonstrate that some aspects of an MS4 program have been implemented but was not able to demonstrate that a comprehensive MS4 program had been developed or implemented. Observation 2. The University was not engaged in a MOU with any other government entity to satisfy one or more of the minimum control measures in Part III or IV of the Permit.
Permit Section III.A. (Personnel Education and Outreach)	Observation 3. University representatives explained that a formal education/training program for University faculty, staff, and students, as required by the NOI, had not been developed.
Permit Section III.B. (Personnel Education and Outreach)	Observation 4. The University was not able to demonstrate that they have scheduled and promoted annual stream monitoring of Towson Run.
Permit Section III.C.1. (Storm Sewer System Map)	Observation 5. A map or set of maps displaying the storm sewer piping and other aspects of the University's system had not been developed.
Permit Section III.C.2. (Legal Means to Enter Private Property)	Observation 6. The University had not developed written procedures or protocols explaining the University's legal authority in regards to illicit discharges, or how to convey this information to faculty, staff, and students.
Permit Section III.C.3. (Field Screening of Outfalls)	Observation 7. University representatives explained that a field screening and survey of stormwater outfalls had been conducted for the University by a consulting firm from 2005 to 2006, but that no other field screening activities had been conducted since that time.
Permit Section III.C.4. (Inspection Procedures for Identifying Illicit Discharges and Spills)	Observation 8. University representatives stated that they did not have written standard operating procedures (SOPs) or a specific plan for identifying illicit discharges. University representatives stated that they typically dealt with illicit discharges and spills on a reactionary basis.

Permit Requirement	Observations
Permit Section III.C.5. (Enforcement and Penalty Procedures)	Observation 9. University representatives explained that the University did not have a document that explicitly stated enforcement and penalty procedures; however, components of the procedures are provided in three separate documents.
Outfall Site Visits Conducted as a Component of the Inspection	Observation 10. On November 7, 2013, the EPA Inspection Team walked stream banks with University representatives to assess the University's mapping of MS4 outfalls, to survey select outfalls for illicit discharges, and to discuss the University's SOPs regarding outfalls. Specific observations regarding the site visits are included in the main body of the report.
Permit Section III.D. (MDE Construction General Permit Coverage)	Observation 11. The University was not conducting reviews of construction projects to evaluate if the projects qualified for coverage under MDE's construction general permit (CGP), or if the University's contractor had been granted coverage for the projects.
Construction Site Visits Conducted as a Component of the Inspection	Observations 12 – 15. On November 7, 2013 the EPA Inspection Team conducted site visits at two University-owned and operated construction sites within the jurisdictional boundaries of the University: (1) Sight and Safety Phase II Project, and (2) Health and Counseling Center project. Specific observations regarding the site visits are included in the main body of the report.
Permit Section III.E. (Post Construction Stormwater Management)	Observation 16. COMAR 26.17.02.10.C requires inspections to be conducted during stormwater management facility construction. Towson University's construction project managers did not have knowledge pertaining to the installation of stormwater management facilities. Observation 17. COMAR 26.17.02.11.C requires that owners shall perform, or cause to be performed, preventive maintenance of all completed ESD treatment practices and structural stormwater management measures to ensure proper functioning. The EPA Inspection Team observed that post-construction BMPs were in various states of operation and some had not been inspected or maintained. Observation 18. University representatives explained that maintenance standards for specific BMPs had not been developed, and that they were in the process of determining what type of maintenance was required for each BMP. They also explained that University staff had not received training on how to determine properly functioning BMPs or how to determine when maintenance is required.

Permit Requirement	Observations
Post Construction Site Visits Conducted as a Component of the Inspection	<p>Observations 19 – 23.</p> <p>On November 7 and 8, 2013 the EPA Inspection Team conducted site visits at five University-owned and operated, post-construction stormwater management facilities within the jurisdictional boundaries of the University: (1) Gillcrest Hospice Center pond, (2) Public Safety Building BMP, (3) Unitas Stadium pond, (4) West Village Garage foundation planter, and (5) Towsontown Garage pond. Specific observations regarding the site visits are included in the main body of the report.</p>
Permit Section III.F. (Pollution Prevention/Good Housekeeping Training)	<p>Observation 24. University representatives stated that the University had not developed a comprehensive plan to educate faculty, staff, and students.</p>
Permit Section III.F (NPDES Industrial Stormwater Permitting)	<p>Observation 25. University representatives stated that they had not determined whether University facilities were required to obtain specific permits from the state or federal governments, but that they were under the impression that they were not required to do so.</p>
Permit Section III.F (Pollution Prevention/Good Housekeeping Procedures)	<p>Observation 26. University representatives stated that written pollution prevention or good housekeeping procedures had not been developed for University facilities, but that staff implemented practices to prevent pollution and knew who to contact in case of spills or other pollution issues.</p>
University Operations Facility Site Visits Conducted as a Component of the Inspection	<p>Observations 27 – 28.</p> <p>On November 8, 2013 the EPA Inspection Team conducted three site visits at University-owned facilities within the jurisdictional boundaries of the University. The EPA Inspection Team visited the following sites: (1) general services facility and (2) landscape services facility. Specific observations regarding the site visits are included in the main body of the report.</p>
Permit Section V.C. (Reporting)	<p>Observation 29 Towson University representatives stated that the University had not submitted annual reports for its MS4 program since obtaining coverage under the Permit in October 2005.</p>



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## INTRODUCTION

From November 7 through 8, 2013, a compliance inspection team composed of staff from the U.S. Environmental Protection Agency (EPA) Region III and EPA's contractor, PG Environmental, LLC, (collectively the EPA Inspection Team) inspected the municipal separate storm sewer system (MS4) program of Towson University (University or Permittee) in Towson, Maryland. Discharges from the University's MS4 are regulated by the Maryland Department of Environment (MDE) *General Permit for Discharges of Stormwater from State and Federal Small Municipal Separate Storm Sewer Systems*, General Discharge Permit No. 05-SF-5501 (General National Pollutant Discharge Elimination System (NPDES) Permit No. MDR055501; hereinafter, the Permit), effective November 12, 2004. The Permit expired November 12, 2009, but has been extended by MDE until a new permit is issued. A copy of the Permit is included as Attachment 1. A copy of the University's original MS4 Notice of Intent (NOI), which contains descriptions of measures for program compliance, is included as Attachment 2.

The purpose of this inspection was to obtain information that will assist EPA in assessing the University's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 program. The inspection schedule is presented in Attachment 3.

The EPA Inspection Team obtained its information through a series of interviews with representatives from the University, along with a series of site visits, record reviews, and field verification activities. The primary representatives involved in the inspection were the following:

University	Mr. Gregory Wood, Director of Environmental Health & Safety (EH&S)
Representatives:	Mr. Larry Holbrook, Assistant Director of EH&S
	Mr. Paul Thomas, Facilities – Landscaping Services
	Mr. Rick Walsh, Facilities
	Mr. Troy Lingelbach, Facilities
	Mr. Warren Riefuer, Facilities
	Mr. Kevin Petterson, Facilities
	Mr. David Turner, Facilities
	Mr. Wade Keeney, Facilities – Power Plant
	Mr. Roger Hayden, Facilities
	Mr. Bernie Gerst, Operations
	Mr. Kris Philips, Facilities
	Mr. Bob Keenon, Landscaping
	Mr. Scott Guckert, Construction
	Mr. Dennis Boffeayer, Facilities
	Mr. Joel Snodgrass, Biological Sciences
	Ms. Renee Norman, Facilities
	Dr. Ryan E. Casey, Associate Professor, Chemistry Department and Interim Director of Environmental Science Program

EPA Representatives: Mr. Andrew Dinsmore, EPA Region III  
Ms. Rebecca Crane, EPA Region III

EPA Contractors: Mr. Max Kuker, PG Environmental, LLC  
Ms. Candice Owen, PG Environmental, LLC

For a more complete list of inspection participants, please refer to the sign-in sheets in Attachment 4.

## **TOWSON UNIVERSITY BACKGROUND**

The University has been developing and implementing its MS4 program since 2005. Authorization was given to the University under the MDE general permit on October 4, 2005. The expiration date of the MDE general permit was November 12, 2009. The MDE general permit has been administratively extended. At the time of the inspection, the University was in MS4 Permit Year 9 (i.e., October 2005 to November 2013).

The University encompasses approximately 328 acres within the Jones Falls watershed, and the total student population of the University is about 22,000 people. The University's MS4 discharges to Towson Run as well as to tributaries of Towson Run, including Glenn Creek.

## **INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS**

During the inspection, the EPA Inspection Team obtained documentation and other supporting evidence regarding compliance with the Permit. Pertinent information may have been obtained prior to, and/or after, meeting with University staff during the physical inspection and is presented in this report as observations. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation.

All referenced documentation used as supporting evidence is provided in Attachment 5, Exhibit Log, and photograph documentation is provided in Attachment 6, Photograph Log.

Before the inspection, the EPA Inspection Team formally requested that the University have specific documentation available for review at the time of the inspection. The EPA Inspection Team provided the University with a written list of requested records on August 27, 2013 (EPA Records Request; see Attachment 5, Exhibit 1). The University made numerous documents available to the EPA Inspection Team during the inspection.

The report below describes and outlines Permit requirements with specific sections cited, the related requirements, and observations made during the inspection. The format of the report follows the numeric system used in the Permit and is sequential. Sections of the Permit are restated with the observations concerning those requirements listed below.

Wet weather conditions were experienced on Thursday, November 7, and the EPA Inspection Team experienced dry weather on Friday, November 8.

## **OVERALL PROGRAM IMPLEMENTATION**

**Permit Section III. (Minimum Control Measures)** – The Permit requires that the University implement the six minimum control measures served by their small MS4. Each agency covered by this general permit shall determine how each minimum control measure will be implemented. Permittees must define appropriate best management practices (BMPs) and develop measurable goals for each measure. Permit Section III. also requires the University to implement the six minimum control measures in the area served by their small MS4 and suggests that a permittee enter into a legally binding contract, memorandum of understanding (MOU), or other similar means to avoid conflicts resulting from noncompliance.

**Observation 1:** The University was able to demonstrate that some aspects of an MS4 program have been implemented but was not able to demonstrate that a comprehensive MS4 program had been developed or implemented.

According to University representatives, the University did not have a dedicated stormwater budget or funding to administer the MS4 program (i.e., fund programs or staff). In addition, there was not a comprehensive plan to coordinate the activities or to ensure that the activities were conducted.

The University was able to provide staff and faculty who were knowledgeable about certain activities required by the Permit. However, many of those activities were essentially being conducted for reasons other than meeting the requirements of the MS4 permit.

The EPA Inspection Team suggested that the University develop written and formal protocols and plans to clearly explain the actions and activities performed by the University for its MS4 program. The EPA Inspection Team also suggested the University staff should develop protocols explaining how documenting their actions, including inspections, would help the University better implement its program.

The EPA Inspection Team suggested the development of a steering committee to foster collaboration among University EH&S, Facilities Management, administration, and academic staff. It was apparent throughout the discussions that the University has the opportunity to include a wide range of participants, including University faculty, staff, and students.

The EPA Inspection Team further suggested that a comprehensive training and education program would help ensure that all University faculty, staff, and students are aware of the MS4 program and the proper departments to contact with issues.

**Observation 2:** According to the Permit, the University may enter into a MOU with any other government entity to satisfy one or more of the minimum control measures in Part III or IV of the Permit. At the time of the inspection, the University had not engaged into an MOU with any other government

entity with regards to implementing the minimum controls of the Permit. The EPA Inspection Team suggested that the University evaluate the benefits of potentially entering into an MOU, or other legally binding agreement, with Baltimore County for the shared services within and adjacent to the University. The MOU might facilitate collaboration between the two permittees and establish a legal authority for interconnections of the storm sewer system.

## **MINIMUM CONTROL MEASURE 1: PERSONNEL EDUCATION AND OUTREACH**

**Permit Section III.A. (Personnel Education and Outreach)** – The Permit requires the University to, at a minimum, provide a personnel education program that contains information about the impacts of stormwater discharges on receiving waters, why controlling these discharges is important, and what the personnel can do to reduce pollutants in stormwater runoff.

**Observation 3:** Section A.1 of the University's NOI states that the University will do the following: "Use agency's citizens and provide links to sites with extensive nonpoint source pollution information," and "Develop a website banner to advertise agency's stormwater program from time to time." University representatives explained that a formal education/training program for University faculty, staff, and students, as required by the NOI, had not been developed.

EH&S staff explained that the University had two types of training that touched on stormwater. University representatives stated that training was targeted to University staff who dealt with hazardous wastes and entailed a one-time hazardous waste generator training, which included a number of slides related to stormwater, illicit discharges, and spills. EH&S staff explained that the training was provided periodically and that employees signed up for the training as their schedules allowed. Staff stated that not all employees received the training and that refresher training was not offered. University representatives additionally provided an "Employee Safety Programs" document containing a stormwater section which defines an MS4 and discusses the Phase II program, impervious area, and illicit discharges. Staff explained that newly hired employees are required to sign forms stating that they have read the document.

During site visits to University construction projects, University construction project managers stated that they had not been trained on stormwater topics except for erosion and sediment controls at the construction sites. The University construction project managers were not aware of what illicit discharges were or who should be contacted if an illicit discharge was identified. One University construction project manager initially stated that he would contact MDE in such cases, but then stated that he would contact the University's EH&S staff.

The Interim Director of the Environmental Science Program stated that four courses taught at the University contained topics pertaining to stormwater: (1) 100-level undergraduate chemistry, (2) 100 level undergraduate biology, (3) senior-level toxicology , and (4) graduate-level environmental science.

In addition, the Interim Director of the Environmental Science Program explained that the University-issued “Towson Tiger Today,” or “T3,” a weekly online publication, sometimes touched on stormwater topics (e.g., stream cleanups). An example “T3” publication that touched on a stormwater topic (e.g., stream cleanup in 2006) is attached (see Attachment 5, Exhibit 2). The 2006 “T3” publication was the latest documented stream cleanup example provided to the EPA Inspection Team. Finally, a student organization called Students for Environmental Awareness has regular meetings and organizes stream cleanups. The Director of EH&S explained that the EH&S Department was not directly involved with coordinating the above-mentioned efforts and did not track the efforts to ensure the frequency of the cleanups, the course curriculum, or the “T3” content.

## **MINIMUM CONTROL MEASURE 2: PUBLIC INVOLVEMENT AND PARTICIPATION**

**Permit Section III.B. (Public Involvement and Participation)** – The Permit requires the University to implement and maintain a public involvement and participation program. Section III.B. of the Permit also requires the University, at a minimum, to comply with all state and federal public notice requirements in actions or decisions having to do with stormwater management.

**Observation 4:** Section B.1 of the University’s NOI states that the University “shall schedule and promote an [sic] restoration activity such as stream monitoring, storm drain stenciling, or streamside tree plantings.” The “Measureable Goals” section of the University’s NOI states that the University must “schedule and promote annual stream monitoring of Towson Run stream on campus” in year 1 and “identify & stencil campus stormwater drains” in year 2.

The University was not able to demonstrate that they have scheduled and promoted annual stream monitoring of Towson Run. As previously noted, the 2006 “T3” publication was the latest documented example of a stream cleanup provided to the EPA Inspection Team.

In addition, University representatives stated that storm drain stenciling had not occurred. However, the EPA Inspection Team observed stenciling at a drain near the Towson Town Garage that included the phrase “No Dumping- Drains to Bay” during the Outfall Site Visits, described in Observation 10. (see Attachment 6, Photograph 1.)

### **MINIMUM CONTROL MEASURE 3: ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM**

**Permit Section III.C. (Illicit Discharge Detection and Elimination)** – The Permit requires the University to develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4.

**Permit Section III.C.1.** – The Permit requires the University to develop and implement a map showing the extent of the storm sewer system.

**Observation 5:** Section C of the University’s January 13, 2005 NOI states that the University will (a) create a map of the facility and all water resources and (b) verify and map inspected outfalls on the facility’s water resources map. University representatives stated that a map showing the extent of the storm drainage system had not been developed. University staff provided several maps that contained components of the drainage system (e.g., underground stormwater management facilities, outfalls, etc.); however, a map or set of maps displaying the storm sewer piping and other aspects of the University’s system had not been developed. A draft version of a map titled “Outfall Locations DRAFT” (hereinafter University’s Outfall Map; see Attachment 5, Exhibit 3) and dated 2006 only indicates outfalls, not the storm drainage system (i.e., conveyances owned by the University for collection and transportation of stormwater). Staff stated that updates to the map had not been made since 2006. Additionally, during field activities the EPA Inspection Team observed that at least three of the six outfalls visited were either incorrectly shown on the map or had been removed.

**Permit Section III.C.2.** – The Permit requires the University to, at a minimum, develop and implement the legal means to provide for entering onto private property to investigate and eliminate illicit storm drain system discharges.

**Observation 6:** University representatives stated that the University had not developed written procedures or protocols explaining the University’s legal authority in regards to illicit discharges, or how to convey this information to faculty, staff, and students. The University has, however, prepared two documents that touch on legal authority. Towson University staff explained that the *Towson University Police Department Manual of General Directives* (see Attachment 5, Exhibit 4) explains that University-employed police officers have the authority to make arrests and to issue civil and criminal citations within the geographic limits of the University. Guidance for police officers pertaining to spills or illegal discharges is not included in this document. Towson University staff further explained that the University also has *University Policies and Procedures* (see Attachment 5, Exhibit 5) and a *Code of Student Conduct* (see Attachment



5, Exhibit 6) that provide guidelines on University employee and student behavior.

**Permit Section III.C.3.** – The Permit requires the University to, at a minimum, develop procedures to field screen stormwater outfalls on a consistent basis in support of the IDDE program.

**Observation 7:** Section C of the University’s January 13, 2005 NOI states that one of the University’s IDDE measurable goals is to annually inspect 10 percent of the University’s outfalls per MDE’s visually/olfactory inspection sheet. University representatives explained that a field screening and survey of stormwater outfalls had been conducted for the University by a consulting firm from 2005 to 2006. Information documenting these activities is included in the document titled *National Pollutant Discharge Elimination System Permit Information* (see Attachment 5, Exhibit 7) dated February 2007. Section 2.3.3 (Field Screening Investigation) of the document indicates that all 52 identified outfalls were field screened for illicit discharges and that Towson University will perform, at a minimum, an annual outfall inspection. University staff stated that field screening had not been conducted since the 2006 activities. Staff provided a draft document titled “D-R-A-F-T Procedures for Field Screening of Stormwater Outfalls” (see Attachment 5, Exhibit 8) dated November 1, 2013 (after the date that EPA notified the University of the inspection), but stated that the procedures had not yet been implemented and that training on the procedures had not been provided to University staff.

**Permit Section III.C.4.** – The Permit requires the University to, at a minimum, develop a program containing inspection procedures for identifying the source of any suspected illicit discharges to the storm drain system and procedures to address spills and illegal dumping.

**Observation 8:** University representatives stated that they did not have written standard operating procedures (SOPs) or a specific plan for identifying illicit discharges. University representatives stated that they typically dealt with illicit discharges and spills on a reactionary basis and that University staff, such as landscaping crews, looked for illicit discharges while conducting their regular activities.

University representatives explained that faculty, staff, and students have access to the University’s *Emergency Resource Guide* containing emergency numbers for various situations. They are directed to use the guide if they identify an illicit discharge. Staff explained that the guides are located in classrooms on campus and with University faculty. Staff stated that the guide contained the correct contacts in cases of illicit discharges or spills; however, it had not been updated since 2007.

University representatives provided the EPA Inspection Team with “D-R-A-F-T Recommended Procedures for Reporting Campus Environmental

Spills” dated November 1, 2013 (after the date that EPA notified the University of the inspection), which they stated would be included in the University’s *Emergency Resource Guide*. University representatives explained that training had not been conducted related to the procedures, but that various University staff knew to go to the *Emergency Resource Guide* to find the proper department to contact. The University maintains a 24-hour hotline to which students, faculty, and staff may report emergencies, including spills or illicit discharges.

The EPA Inspection Team learned that two illicit discharges/spills had been recorded since the University had become regulated under the Permit. One involved a sewage spill and was reported by Facilities Management, and the second involved an oil and grease spill and was initially reported by students. It was unclear how students reported the oil and grease spill to the University, whether the book of emergency contacts was used, and if the incident was quickly routed to EH&S for response. Documentation of the event was not provided to the EPA Inspection Team.

University representatives stated that a central system to document reports of spills or illicit discharges did not exist and that the documentation regarding the details of the aforementioned events was exclusively maintained via email by EH&S staff.

**Permit Section III.C.5.** – The Permit requires the University, at a minimum, to develop and implement enforcement and penalty procedures.

**Observation 9:** University representatives explained that the University did not have a document that explicitly stated enforcement and penalty procedures, but that information is provided in three separate documents.

1. As stated above, the *Towson University Police Department Manual of General Directives* (see Attachment 5, Exhibit 4) provides authority to University police officers to make arrests and to issue civil and criminal citations, but does not include guidance pertaining to spills or illegal discharges.
2. The *University Policies and Procedures* (see Attachment 5, Exhibit 5) contains policies that describe unacceptable personal conduct for University employees and dictates types of disciplinary actions; however, conduct specific to illicit discharges or other polluting activities is not specifically addressed.
3. The University’s *Code of Student Conduct* (see Attachment 5, Exhibit 6) explains disciplinary procedures for misconduct, including actions that range from censure to suspension and expulsion. While stormwater is not specifically mentioned, the document states that intentionally or recklessly damaging, destroying, defacing or tampering with University or private property is prohibited.

The EPA Inspection Team suggested that the University examine how best to incorporate stormwater and illicit discharge prohibitions into each of these documents. The EPA Inspection Team additionally suggested that the University develop a document that explains the University's overall procedures for penalties and enforcement.

**Outfall Site Visits Conducted as a Component of the Inspection** – On November 7, 2013 the EPA Inspection Team conducted site visits at multiple outfalls to Towson Run and Glen Creek (a tributary to Towson Run) within the jurisdictional boundaries of the University.

The purpose of the visits was to assess the University's mapping of MS4 outfalls, to survey select outfalls for illicit discharges, and to discuss the University's SOPs regarding outfalls. During the site visits, the EPA Inspection Team walked stream banks with University representatives. Because of their relevance to the University's obligations for IDDE under its MS4 permit, summary observations pertaining to the outfall visits at Towson Run and Glen Creek are presented below.

**Observation 10: University MS4 Outfall Reconnaissance – Towson Run and Glen Creek (November 7, 2013)**

Towson Run flows from the northeast corner of the campus to the northwest corner. As stated above, the EPA Inspection Team was presented the University's Outfall Map dated 2006 (see Attachment 5, Exhibit 3). Staff stated that the map had been developed as part of a field screening and survey of stormwater outfalls conducted for the University by a consultant. Staff stated that the map had not been updated and that a number of structural changes had been made to the University's MS4 since that time.

The EPA Inspection Team visited three areas on campus: (1) the northeast corner, near the Residence Tower and the Towson Town Garage, (2) the central portion of campus referred to as "The Glens," and (3) the northwest area of campus near Barton House and Douglas House.

The EPA Inspection Team observed the following with regard to MS4 outfalls on campus:

- a. Towson Run flows onto campus from Baltimore County in the northeast corner of campus (see Attachment 6, Photographs 2 and 3).
- b. The University's Outfall Map shows a number of outfalls, labeled TU – 003, 004, 005, and 006, downstream of Towson Run's entrance onto campus. These outfalls were not observed during the site visit and University staff stated that the outfalls had most likely changed since the map had been created. University staff stated that they were unsure if an outfall underneath the Towson Town Garage was draining University property and stated that it appeared to be an outfall to the stream from Towson Town Boulevard in Baltimore County's

jurisdictional area (see Attachment 6, Photograph 4) and therefore was not contained on the map.

- c. Glen Creek flows through “The Glen” area of campus and is then conveyed underground (see Attachment 6, Photograph 5) until its convergence with Towson Run to the north. The EPA Inspection Team observed one outfall along the stream that was later identified as TU – 051 using the University’s Outfall Map (see Attachment 5, Exhibit 3 and Attachment 6, Photograph 6). TU – 028 and TU – 029, located close to TU – 051 and TU – 030, both shown on the University’s Outfall Map, could not be located during the field activity.
- d. An MS4 outfall to Towson Run was observed in the area of Barton House and Douglas House on the northwest side of campus (see Attachment 6, Photograph 7). This appeared to be near the location of TU – 034 and TU – 035 identified on the University’s Outfall Map; however, the outfall observed did not match either of the photographs for these outfalls shown in the University’s Outfall Map (see Attachment 5, Exhibit 3). University staff stated this area had been redeveloped since the inventory had been conducted and that the outfalls had most likely been altered.
- e. An MS4 outfall was observed in the northwest corner of the campus flowing from a stormwater management facility (i.e., pond) near Gillcrest Hospice Center to Towson Run. This outfall is identified on the University’s Outfall Map (see Attachment 5, Exhibit 3) as TU – 052 (see Attachment 6, Photographs 8 through 12). University representatives were unsure whether this pond was actually owned by the University and stated that it might be owned by the Gillcrest Hospice Center, which is located south and up the hill from the pond.

#### **MINIMUM CONTROL MEASURE 4: CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM**

**Permit Section III.D. (Construction Site Stormwater Runoff Control)** – The Permit requires the University to adhere to Maryland Environment Article, Title 4, Subtitle 1, Annotated Code of Maryland, which establishes a statewide erosion and sediment control program to control construction site stormwater runoff. This statute, coupled with the Code of Maryland Regulations (COMAR), specifies the requirements for any construction activity that disturbs five thousand (5,000) square feet or more of earth.

COMAR 26.17.01.02 states that an acceptable erosion and sediment control program will include 1) an effective erosion and sediment control ordinance or an effective set of erosion and sediment control regulations, which has been approved by the Water Management Administration; 2) review and approval of erosion and sediment control plans in accordance with the *2011 Maryland Standards and Specification for Soil Erosion and Sediment Control*; 3) requirements for erosion and sediment control plans to provide effective erosion and sediment control strategies (i.e., BMPs) and information necessary to enable the proper installation and

maintenance of these strategies; and 4) inspection and enforcement procedures (in delegated jurisdictions) that ensure compliance with the approved erosion and sediment control plan, as well as provide for timely response to citizen complaints. Further, COMAR 26.17.01.11 states that the *2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control* is incorporated by reference by the Administration, and shall serve as the official guide for erosion and sediment control principles, methods, and practices.

Towson University had not been delegated the erosion and sediment control program by MDE. Therefore, the Permit's only substantive requirement is for the University to submit its erosion and sediment control plans to the Water Management Administration (i.e., MDE).

**Permit Section III.D.** – The Permit requires the University to comply with all state and federal laws, regulations, ordinances, and procedures relating to erosion and sediment control.

**Observation 11:** The EPA Inspection Team interviewed two of the University's construction project managers at two campus construction projects, and both stated that they were unsure whether the construction projects they were managing qualified for coverage under MDE's construction general permit (CGP), or if the University's contractor had been granted coverage for the projects.

University construction project managers stated that they did not typically perform reviews of project documents to ensure University contractors had obtained coverage under MDE's CGP, if required, and were in compliance with the permit (e.g., conducting routine inspections).

**Construction Site Visits Conducted as a Component of the Inspection** – On November 7, 2013 the EPA Inspection Team conducted site visits at two University-owned and operated construction sites within the jurisdictional boundaries of the University: (1) Sight and Safety Phase II Project, and (2) Health and Counseling Center project. Wet weather conditions were experienced immediately prior to the inspection activities.

The purpose of the visits was to assess the University's oversight activities for construction sites. During the site visits, the EPA Inspection Team walked the construction sites with University representatives, including the University construction project managers tasked with managing the University's contractors. Because of their relevance to the University's obligations for construction site stormwater runoff control under its MS4 permit, summary observations pertaining to the two site visits are presented below.

**Observation 12: Sight and Safety Phase II Project (November 7, 2013)**  
The Sight and Safety Phase II construction project (MDE CGP Permit No. 13SF0060) is located at the intersection of Towson Boulevard West and Osler Drive. The project consists of the construction of a walkway over Osler Drive from the west to the east, an athletic field and the underground channelization of Towson Run in the area. According to the University construction project manager, construction started around May 2013 and is scheduled to be completed by spring 2014. At the time of the

site visit, a majority of the site was disturbed and the structure covering Towson Run was almost complete.

According to the University construction project manager, stormwater from the site enters several onsite storm drains, which discharge to Towson Run. In addition, stormwater can enter the creek directly from the banks of Towson Run, which are protected by silt fence.

The University construction project manager explained that he typically visits the site daily to review construction activities. He further explained that erosion and sediment controls are one aspect of his responsibilities, as he is responsible for all aspects of construction activities (e.g., schedule, buildings, utilities, etc.). The construction project manager stated that he typically does a daily site walk but that he may not review all areas where erosion and sediment controls are located. He also stated that he does not regularly document his site walk findings and that he primarily conveys erosion and sediment control issues to the site contractor verbally. He further stated that he does not conduct reviews to ensure that a site has properly obtained permit coverage under MDE's CGP, or whether the site is in compliance with the requirements of MDE's CGP (i.e., regular inspections).

The EPA Inspection Team observed the following with regard to erosion and sediment controls at the University construction site and verbally reviewed the observations with University representatives during the site visit:

- a. Tracking was noted from the construction entrance onto Osler Drive (see Attachment 6, Photographs 13 and 14).
- b. A temporary sedimentation pond was observed in the southern portion of the site (see Attachment 6, Photographs 15 and 16).
- c. Towson Run had been permanently covered by a Contech vault system (see Attachment 6, Photographs 17 and 18).
- d. An assortment of chemicals (i.e., coatings, waterproofing chemicals, primer, and joint lubricants) was observed stored throughout the project without BMPs (see Attachment 6, Photographs 19, 20, and 21). The University construction project manager explained to the EPA Inspection Team that a review of chemicals stored at the site is not conducted during his daily site visits.
- e. A sheen was observed on standing water inside a concrete form located adjacent to Towson Run in the eastern portion of the project (see Attachment 6, Photograph 22).
- f. Dewatering was occurring in the northwest section of the project adjacent to Towson Run in an area without vegetation. Turbid water was observed flowing down a vegetated side slope and through Super

Silt Fence into Towson Run, causing erosion of the slope (see Attachment 6, Photographs 23 through 27).

- g. Erosion was observed along the side slope adjacent to Towson Run in the interior portion of the project. This resulted in sediment covering approximately half the height of the Super Silt Fence (see Attachment 6, Photograph 28).

**Observation 13: Health and Counseling Center Project (November 7, 2013)**

The Health and Counseling construction project is located at the intersection of Linthicum Drive and University Avenue (see Attachment 6, Photograph 29). The project consists of the redevelopment of a site that contained two university dorms and a roundabout. The first phase of the project, which had been completed, was to connect the University's utilities system (i.e., steam) to the buildings. The second phase of the project includes refurbishing the two buildings and constructing a structure connecting the two buildings. In addition, a stormwater management pond and a foundation planter were to be constructed.

According to the University's construction project manager, the project started in June 2012 and was expected to be complete in December 2013. At the time of the site visit it appeared that the connecting structure had been completed and the stormwater management controls had been partially constructed. A large portion of the site was disturbed.

According to the University's construction project manager, the site disturbance for the project was 0.928 acres. The University's construction project manager was not clear if the area of disturbance included both phases of the project or whether coverage under MDE's construction general permit had been obtained.

The University construction project manager explained that he typically visits the site daily to review construction activities. He further explained that erosion and sediment controls are one aspect of his responsibilities, as he is responsible for all aspects of construction activities (e.g., schedule, buildings, utilities, etc.). The University construction project manager stated that he typically conducts a daily site walk but that he may not review all areas where erosion and sediment controls are located. He also stated that he does not regularly document his site walk findings and that he primarily conveys erosion and sediment control issues to the site contractor verbally. He further stated that he does not review the site to ensure that proper permit coverage under MDE's CGP has been obtained or whether the site is in compliance with the requirements of MDE's CGP (i.e., regular inspections).

The EPA Inspection Team observed the following with regard to erosion and sediment controls at the construction site and verbally reviewed the observations with University representatives during the site visit:

- a. The ends of repaired silt fence had been stapled together instead of being wrapped around a stake, and the repaired silt fence was not entrenched after repair (see Attachment 6, Photographs 30 and 31).
- b. Sections of silt fence near a construction entrance on West Drive were overlapped instead of being wrapped around a stake (see Attachment 6, Photograph 32).
- c. Perimeter controls along University Avenue were not installed in accordance with the erosion and sediment control plans and were degraded and broken (see Attachment 6, Photographs 33 and 34).

**Observation 14: Power Plant (November 8, 2013)**

The EPA Inspection Team visited the Site and Safety Project located near Cook Library and the Power Plant. The Project Manager stated that this 18 month project began in May 2013 and would be completed December 2014. The current segment would be complete late November 2013. Potts and Callahan were subcontractors on site to Whiting-Turner Contracting, Inc. A complete inspection of the construction project was not conducted; however, observations of the construction entrance indicated it was not properly stabilized, resulting in the tracking of sediment onto the sidewalk and roadway adjacent to the entrance in the vicinity of a roadway trench drain (see Attachment 6, Photographs 35 through 37).

**Observation 15: Suggestions for Construction Site Stormwater Runoff Control Program Improvement**

As indicated above, the EPA Inspection Team observed two of the University's construction project managers as they conducted routine oversight inspections at two construction sites within the University's jurisdiction. The EPA Inspection Team observed that the inspections focused only on erosion and sediment control. As a program improvement, the EPA Inspection Team suggested including a focus on other pollutants, such as petroleum products and other chemicals, in the inspection process in order to help identify environmental deficiencies that may be related to outside agency regulations and to provide added protection for the MS4 from all potential pollutants.

The EPA Inspection Team also suggested that the University could improve its construction site inspection program by including a review of the NPDES Construction General Permit status (if applicable), even though those reviews are not specific program requirements according to the Permit or COMAR.

The University did not have SOPs for conducting oversight inspections. Although it is not a specific Permit requirement, the EPA Inspection Team



suggested that the construction site oversight program could be improved by developing SOPs to make the inspection process more consistent for the construction project managers and to ensure the entire construction site is reviewed.

## **MINIMUM CONTROL MEASURE 5: POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM**

**Permit Section III.E. (Post-Construction Stormwater Management)** – The Permit requires the University to adhere to Maryland Environment Article, Title 4, Subtitle 2, Annotated Code of Maryland, which establishes a statewide stormwater management program. This statute, coupled with COMAR, requires that stormwater management for new development and redevelopment be addressed for any proposed project that disturbs five thousand (5,000) square feet or more of earth.

COMAR 26.17.02.03 states that an acceptable stormwater management program will include 1) a Water Management Administration-approved stormwater management ordinance; 2) stormwater management planning and approval processes that provide stormwater management for every land development subject to COMAR 26.17.02, implementation of environmental site design (ESD) to the maximum extent practicable (MEP), and the ability and the information necessary to review adequately proposed installation and maintenance measures for stormwater management; and 3) inspection and enforcement procedures that ensure the proper construction and maintenance of approved stormwater management measures.

The EPA Inspection Team reviewed procedures related to the implementation of the requirements in both the Permit and COMAR, including tracking and reporting of the implementation of the *2000 Maryland Stormwater Design Manual* as well as identifying, conducting, and documenting maintenance inspections for stormwater management BMPs at the University. Site visits were used to verify these implementation procedures.

COMAR 26.17.02.10.C (Installation of Stormwater Management Facilities) requires inspections to be conducted during stormwater management facility construction.

**Observation 16:** Towson University's construction project managers did not have knowledge pertaining to the installation of stormwater management facilities. University construction project managers did not appear to be knowledgeable about post-construction BMPs planned for installation on their sites, and therefore did not appear to be vigilant regarding required contractor inspections or ensuring that these areas were protected from soil compaction and disturbance.

COMAR 26.17.02.11.C (Long-term Operation and Maintenance of Structural Stormwater Management Facilities) states that owners shall perform, or cause to be performed, preventive maintenance of all completed ESD treatment practices and structural stormwater management measures to ensure proper functioning. The responsible agency shall ensure preventive maintenance through inspections, occurring during the first year of operation and then at least once every three years, of all stormwater management systems.

**Observation 17:** During site visits to five aboveground stormwater management facilities (i.e., four ponds and one foundation planter) located throughout the University's campus, the EPA Inspection Team observed that post-construction BMPs were in various states of operation and some had not been maintained.

University representatives stated that a comprehensive inventory of post-construction BMPs had not been compiled. University representatives provided the EPA Inspection Team with a map that displayed 11 points (see [Attachment 5, Exhibit 9](#)) that they explained were the majority of underground BMPs located on campus, and this map had been developed as a result of their being notified of the EPA inspection. University representatives also provided a list of 10 underground BMPs (see [Attachment 5, Exhibit 10](#)). University representatives additionally provided page 5 from the University's 2006 *Stormwater Master Plan Report* (see [Attachment 5, Exhibit 11](#)), which features a table listing 13 existing stormwater management facilities. However, staff stated that this table was not comprehensive and that additional structures likely existed.

University representatives explained that stormwater management facilities had been installed on campus over the past 10 or so years and that oversight of BMP installation was left up to the University's contractors. They also explained that a final as-built inspection of the BMPs was conducted by the University's engineers and MDE, and that a final set of as-built drawings was provided to the University.

University representatives stated that they had not implemented a method to assign maintenance responsibility for existing and new BMPs. University staff explained that a newly installed foundation planter at the West Village Garage had a maintenance plan, and that three green roofs on campus had maintenance schedules and were maintained by a contractor. However, the majority of stormwater management facilities on campus did not have maintenance plans and specific maintenance requirements had not been developed.

University representatives explained that some inspections of underground stormwater management facilities had been conducted, but that they had not been documented. They stated they were struggling with the unique maintenance requirements for both above- and below-ground BMPs. Safely accessing underground components was also a concern.

University representatives stated that University personnel had not received training to understand proper operation and maintenance of BMPs, but that some ponds had received basic maintenance, such as mowing and aesthetic landscaping.

The EPA Inspection Team suggested that contracting inspection and maintenance activities for stormwater management facilities might allow for the most efficient, appropriate, and cost-effective methods to complete the maintenance.

**Observation 18:** University representatives explained that maintenance standards for specific BMPs had not been developed, and that they were in the process of determining what type of maintenance was required for each BMP. They also explained that University staff had not received training on how to determine properly functioning BMPs or how to determine when maintenance is required.

In addition, during the field portion of the inspection, University staff were not able to locate the stormwater pond at Newell Hall they thought existed, had difficulty locating the ponds at the Towsontown Garage, and were unsure of the ownership of the pond near the Gillcrest Hospice Center.

**Post Construction Stormwater Management Facilities Site Visits Conducted as a Component of the Inspection** – On November 7 and 8, 2013 the EPA Inspection Team conducted site visits at five University-owned and operated, post-construction stormwater management facilities within the jurisdictional boundaries of the University: (1) Gillcrest Hospice Center pond, (2) Public Safety Building BMP, (3) Unitas Stadium pond, (4) West Village Garage foundation planter, and (5) Towsontown Garage pond.

The purpose of the visits was to assess the University's inspection and maintenance of post-construction BMPs. Because of their relevance to the University's obligations for post-construction stormwater management under its MS4 permit, summary observations pertaining to the five site visits are presented below.

**Observation 19: Post Construction Stormwater Management Facility – Gillcrest Hospice Center Pond (November 7, 2013)**

The Gillcrest Hospice Center pond was located in the northwest corner of campus. University representatives were unsure whether this pond was actually owned by the University and stated that it might be owned by the Gillcrest Hospice Center, which is located up the hill from the pond.

The EPA Inspection Team observed the following with regard to maintenance of the stormwater management facility during the site visit:

- a. A fallen tree was observed in the pond (see Attachment 6, Photograph 8).
- b. Sediment and debris were observed in the inlet to the pond (see Attachment 6, Photograph 9).

- c. A drainage pipe observed in the pond appeared to drain to Towson Run, on the opposite side of pond's earthen berm (see Attachment 6, Photographs 10 and 11).
- d. An overflow spillway was observed. It appeared to drain to Towson Run (see Attachment 6, Photograph 12).
- e. University staff could not provide design, installation, or operation and maintenance records (i.e., maintenance schedule and inspection records) to the EPA Inspection Team.
- f. University staff stated that they were unsure if the pond had received inspection or maintenance in the past.

**Observation 20: Post Construction Stormwater Management Facility – Public Safety Building Bioswale (November 8, 2013)**

The Public Safety Building bioswale was located immediately east of the Public Safety Building. According to the Director of EH&S, the Public Safety Building was originally constructed in the 1960s or 1970s. The building was refurbished during 2012–2013; the bioswale was installed at that time and was completed in May 2013. The bioswale provides treatment primarily for stormwater runoff from the building and surrounding area (i.e., roof drains and parking area). It discharges to the separate storm sewer system located at the University.

The EPA Inspection Team observed the following with regard to maintenance of the stormwater management facility during the site visit:

- a. Vegetation in the bioswale was well established and the bioswale appeared to be functioning properly (see Attachment 6, Photograph 38).
- b. University staff could not provide design, installation, or operation and maintenance records (i.e., maintenance schedule and inspection records) to the EPA Inspection Team.
- c. University staff stated that they were unsure if the pond had received inspection or maintenance since its installation in May 2013.

**Observation 21: Post Construction Stormwater Management Facility – Uinitas Stadium Post-Construction Pond (November 8, 2013)**

The Uinitas Stadium post-construction pond was located on Auburn Drive to the west of the stadium. According to the Director of EH&S, the pond was constructed approximately 10–15 years prior to the EPA inspection. The pond provides treatment primarily for stormwater runoff from the stadium (mainly consisting of an athletic field and track). According to the Director of EH&S, the pond discharges to Towson Run, located several hundred yards to the southwest (see Attachment 6, Photograph 39).

The EPA Inspection Team observed the following with regard to maintenance of the stormwater management facility during the site visit:

- a. The pond was observed to be overgrown with vegetation, including trees and leafy vegetation in the bottom of the pond and on the side slopes of the pond (see Attachment 6, Photographs 40, 48 and 49).
- b. Erosion was observed on the side slope in the northeast corner and on the northern end of the pond, including around a sewer manhole structure (see Attachment 6, Photographs 41 through 43).
- c. Sediment and debris were observed in the inlet located in the northern portion of the pond (see Attachment 6, Photographs 44 and 45).
- d. Sediment and debris were observed in the inlet to the pond in the southeastern portion of the pond (see Attachment 6, Photograph 46). In addition, flow had formed a berm around the area, creating an uneven distribution of flow into the pond (see Attachment 6, Photograph 47).
- e. The pond was constructed with an underdrain system and cleanout (see Attachment 6, Photographs 49).
- f. University staff could not provide design, installation, or operation and maintenance records (i.e., maintenance schedule and inspection records) to the EPA Inspection Team.
- g. University staff stated that they were unsure if the pond had received inspection or maintenance in the past.

**Observation 22: Post Construction Stormwater Management Facility – West Village Garage Foundation Planter (November 8, 2013)**

The West Village Garage foundation planter was located to the north of the parking garage in the northwest corner of the campus. According to the Director of EH&S, the planter was constructed approximately two years prior to the EPA inspection. The planter provides treatment primarily for stormwater runoff from the roadway surrounding the garage and the parking garage. According the Director of EH&S, the planter discharges to Towson Run located immediately north of the garage.

The EPA Inspection Team observed the following with regard to maintenance of the stormwater management facility during the site visit:

- a. Vegetation in the foundation planter was well established and the planter appeared to be maintained and functioning properly (see Attachment 6, Photograph 50).
- b. University staff were able to provide design details, an operation and maintenance plan, and maintenance records to the EPA Inspection Team.

- c. Towson University's aboveground BMP inventory (page 5 of the University's 2006 *Stormwater Master Plan Report*) did not appear to contain the foundation planter (see Attachment 5, Exhibit 11).

**Observation 23: Post Construction Stormwater Management Facility – Towsontown Garage Pond (November 8, 2013)**

The Towsontown Garage pond was located in the north-central portion of campus, between Towsontown Boulevard and University Avenue. According to the Director of EH&S, the pond was constructed 10 or more years prior to the EPA inspection. The pond provides treatment primarily for stormwater runoff from the parking garage. According the Director of EH&S, the pond discharges to Towson Run, which flows from east to west under a portion of the garage (see Attachment 6, Photograph 4).

The EPA Inspection Team observed the following with regard to maintenance of the stormwater management facility during the site visit:

- a. University staff were unable to immediately locate the pond. Further, staff were unsure if the site consisted of one or two ponds; however, it appeared to the EPA Inspection Team that there was only one pond.
- b. Towson University's aboveground BMP inventory (page 5 of the University's 2006 *Stormwater Master Plan Report*) did not appear to contain the pond(s) (see Attachment 5, Exhibit 11).
- c. The pond was observed to be overgrown with vegetation, such as trees and leafy brush (see Attachment 6, Photographs 51 and 52).
- d. Erosion was observed around a roof drain from the parking garage adjacent to the pond (see Attachment 6, Photograph 53).
- e. University staff could not provide design, installation, or operation and maintenance records (i.e., maintenance schedule and inspection records) to the EPA Inspection Team.
- f. University staff stated that they were unsure if the pond had received inspection or maintenance in the past.

**MINIMUM CONTROL MEASURE 6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING**

**Permit Section III.F. (Pollution Prevention and Good Housekeeping)** – The Permit requires the University to implement and maintain pollution prevention and good housekeeping techniques and procedures to reduce pollutants from all facility operations.

**Permit Section III.F.** – The Permit requires the University to maintain employee training materials on preventing and reducing pollutant discharges to the MS4.

**Observation 24:** University representatives stated that the University had not developed a comprehensive plan to educate faculty, staff, and students. University representatives explained that the only employee training conducted

pertaining to stormwater was around 20 slides discussing stormwater as part of the hazardous waste generator training. They further stated that not all University employees were required to take the training. The aforementioned training slides pertaining to stormwater, along with training sign-in sheets, were provided to the EPA Inspection Team. University representatives stated that they were not aware of any additional training provided to staff.

A University faculty member explained that a number of student courses addressed stormwater issues. These included freshman level chemistry, biology, environmental science courses, a senior toxicology course, and a graduate level environmental science course.

**Permit Section III.F.** – The Permit requires the University to ensure all facility activities are properly permitted under NPDES or any other appropriate state or federal water pollution control program.

**Observation 25:** Section F.1. of the University’s January 13, 2005 NOI states that the University will “make sure all agency ‘industrial’ facilities have NPDES general permit for stormwater.”

University representatives stated that they had not determined whether University facilities were required to obtain specific permits from the state or federal governments, but that they were under the impression that they were not required to do so.

The MDE Industrial General Permit (02-SW) designates that department of public works and highway maintenance facilities are required to receive coverage under that permit.

The EPA Inspection Team suggested, based on the types of activities that were conducted at University facilities such as vehicle maintenance, University staff should further research whether additional permits such as 02-SW are required.

**Permit Section III.F.** – The Permit requires the University to develop pollution prevention or good housekeeping procedures themselves or to rely on another responsible entity to comply with this minimum control measure.

**Observation 26:** Section F.1. of the University’s January 13, 2005 NOI states that the University will “generate a pollution prevention plan per general permit requirements.” Further, Section F.2. states that Towson University will “develop pollution prevention options for all municipal property not covered by ‘industrial’ general permits.”

University representatives stated that written pollution prevention or good housekeeping procedures had not been developed for University facilities,

but that staff implemented practices to prevent pollution and knew who to contact in case of spills or other pollution issues. University representatives further stated that staff at University facilities did not perform dedicated stormwater inspections of the facilities, but that staff were aware of stormwater concerns and walked through the facilities frequently.

The EPA Inspection Team suggested that site-specific SWPPPs or general BMP informational packets be developed for each of the University's facilities to provide the most site applicable and site specific information for employees. The EPA Inspection Team also suggested that University staff perform stormwater inspections of facilities and that they document the results of these inspections.

### **University Operations Facility Site Visits Conducted as a Component of the Inspection**

On November 8, 2013 the EPA Inspection Team conducted three site visits at University-owned facilities within the jurisdictional boundaries of the University. The purposes of the site visits were to document site conditions and to assess the University's oversight activities for University operation and maintenance. The EPA Inspection Team visited the following sites: (1) general services facility and (2) landscape services facility. Dry weather conditions were experienced during the inspection activities. Because of their relevance to the University's obligations for pollution prevention and good housekeeping for University operations under its Permit, summary observations pertaining to the general services facility and landscape services facility site visits are presented below.

#### **Observation 27: University Facility – General Services Facility (November 8, 2013)**

The general services facility is located on Towson Town Boulevard, Towson, Maryland. The facility houses storage and operations space for a number of University activities including fleet maintenance, HVAC, painting, key shop, road salting, and others. The facility consists of a large main building housing individual shop rooms, a salt storage barn, and two large dumpsters. University staff stated that vehicle washing takes place at two carwashes located off of campus.

Stormwater drainage from the facility flows to an outlet located on the southwest side of the site. The outlet drains to the MS4, and stormwater eventually discharges into Towson Run.

University staff explained that the facility was not covered under the MDE industrial general permit and that neither site-specific BMPs nor a SWPPP had been developed for the site.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility and verbally reviewed the observations with University representatives during the site visit.



- a. Two floor drains located in the storage and staging area inside the main building were connected to the storm sewer (see Attachment 6, Photographs 54 and 55). University staff stated that the drains are connected to an outfall from the site to the MS4 along Towsontown Boulevard (see Attachment 6, Photograph 56). Paint and other chemicals were stored on shelves near the indoor floor drains (see Attachment 6, Photograph 57).

**Observation 28: University Facility – Landscape Services Facility (November 8, 2013)**

The landscape services facility is located in the southwest portion of the campus. The facility consists of a shop building used for equipment storage and for minor repairs on equipment, fueling station, bulk storage shed, and an outdoor vehicle and equipment storage area (see Attachment 6, Photograph 58).

University staff explained that the facility was not covered under the MDE industrial general permit and that neither site-specific BMPs nor a SWPPP had been developed for the site.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the facility and verbally reviewed the observations with the University representatives during the site visit.

- a. Stains were present under two pieces of equipment on the impervious surface in the yard (see Attachment 6, Photographs 59, 60, and 61). The facility representative stated that regular informal inspections of the area include checking for significant leaks from equipment, but documentation of the inspections is not maintained.

## **PERMIT SECTION V.C.: REPORTING**

**Permit Section V.C. (Reporting)** – The Permit requires the University to submit a report to MDE annually using the annual reporting form provided in Appendix E of the Permit. The report should contain the following information:

1. The status of compliance with Permit conditions, an assessment of the appropriateness of the identified BMPs, and a description of progress toward achieving the identified measurable goals for each of the minimum control measures.
2. Results of information collected and analyzed, including monitoring data if any, during the annual reporting period.
3. A summary of the stormwater activities the University plans to undertake during the next annual reporting period.
4. A change in any identified measurable goals (described in Appendix C of the Permit) that apply to the minimum control measures.

5. A description of the coordination efforts with other agencies regarding the implementation of the minimum control measures, including the status of any MOU or other agreement executed between the University and another entity.
6. A fiscal analysis of capital and operating expenditures to implement the minimum control measures.

**Observation 29:** As previously mentioned, Towson University representatives stated that the University had not submitted annual reports for its MS4 program since obtaining coverage under the Permit in October 2005. The University is currently at the beginning of MS4 Permit Year 9 (i.e., October 2005 to November 2013).